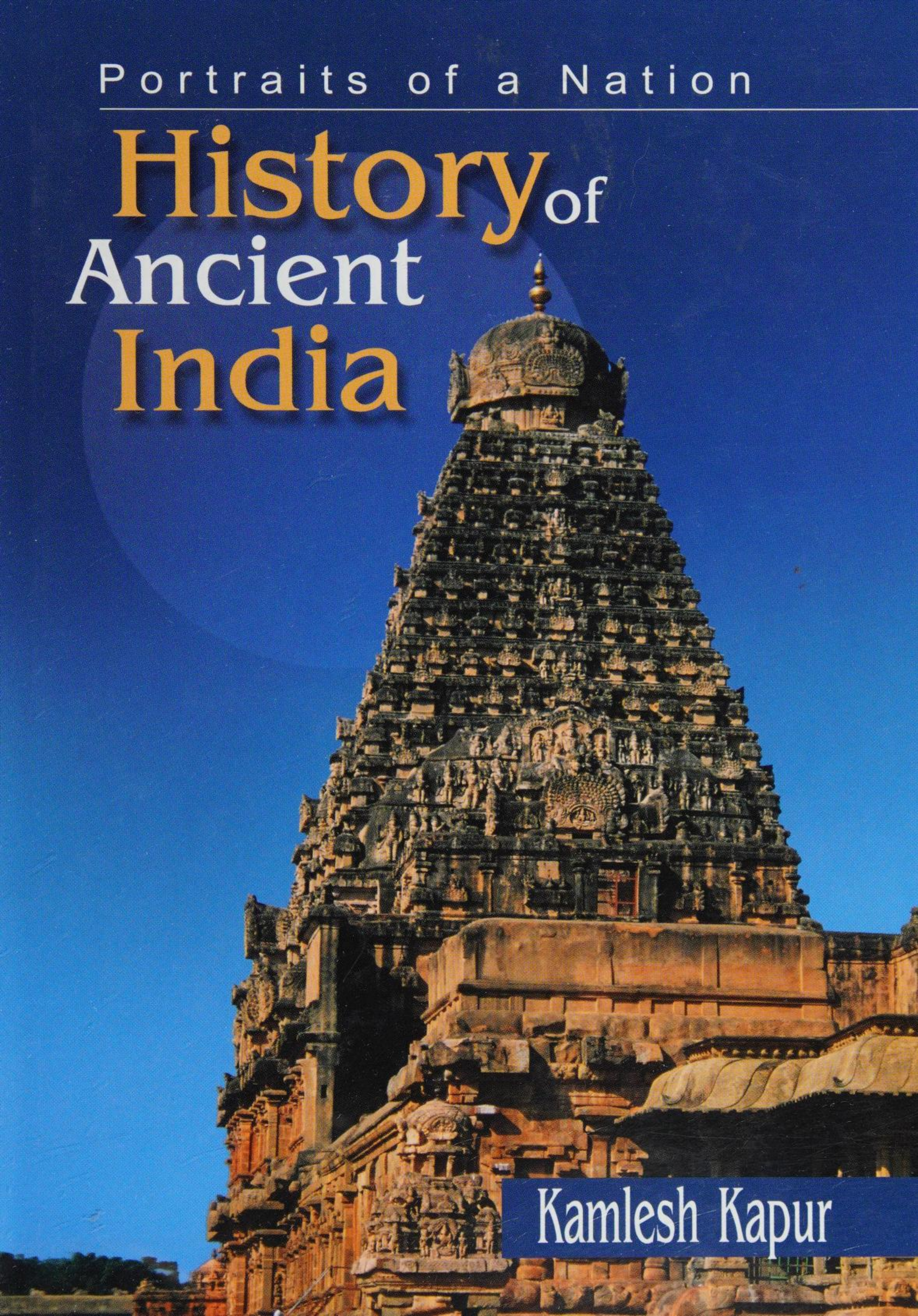
Portraits of a Nation

History of Ancient India



Kamlesh Kapur

SHOUT
SHARE
IT

The history of India has been written and rewritten several times, each time with a different context. Historical narratives act as a powerful vehicle of culture and tradition from generation to generation. Therefore it is essential to give an authentic narrative of India's past using all the new evidence which has surfaced through archaeological excavation in the Indus-Sarasvati region.

Researches in the field of ecology, natural history and genetics have given us enough pointers enabling us to write a fairly accurate history of Ancient India. This book ties up all this new evidence with the internal evidence from the literary sources. Discarding several theories and assumptions, it focuses attention on the contributions of Indian civilization and culture to mankind. It is a comprehensive work highlighting those historical events and developments which left significant impact on the heritage of mankind.

Presented in a non invasionist model, this book attempts to reclaim the accurate chronology of Ancient Indian history and do away with many myths and prevailing misconceptions surrounding it. Supplemented by numerous photographs and illustrations of ancient relics, inscriptions and maps, it makes an interesting read meant for students and general readers.

70°
80°
30°
20°
10°
KETUMALA
SOGDIANA
R. Vaksha
VALHIKA
BACTRIANA
PAMIRS
ARIA
GANDHARA
Taxila
JAGUDA
R. Helmund
R. Kubha
KEKAYA
Sialkot
MADRA
R. Iravati
Harappa
Multan
YAUDHEYA
Sukkur
BRAHMAVARTA
R. Drishadvati
R. Sindhu
R. Sarasvati
SUDRAS
Brahmanabad
MARU
Thar Desert
NIGHADAS
GEDROSIA
Barbaricum
KACHCHHA
ANARTA
Dwarka
Girnar h.l.
Junagadh
SURASHTRA
Vanavi
Diu I.
Surparaka
Kanheri (Bombay)
Elephanta (Gharapuri)
R. Parnasa
R. Chambal
Deogarh
NAGAS
AVANTI
Ujjayini
R. Tapti
R. Narmada
ANUPA
JANDARA
RASHTRIKAS
MULAKA
Paithan
Junnar
R. Manjira
R. Bhimarathi
VIDARBHA
AKATAKAS
Chakrakuta
R. Indravati
DAKSHINAPATHA
R. Krishna
R. Godavari
R. Penna
R. Kaveri
Punnad
GANGAVADI
Coleroon
Kanchi
Kaviripaddinam
DRAVIDA
PAMIRICA
Muziris
Uraiyur
CHOLA
R. Kritamala
Madura
PANDYA
Ramesvaram
Tamraparni R.
Kayal
Korkai
TAMRAPARNI
PARASAMUDRA
OR
SIMHALA
CEYLON
Laccadive
Islands
Kausambi
Prayaga
R. Ganga
VATSA
R. Son
MAGADHA
R. Sarayu
KOSALA
Ayodhya
Sravasti
Gonda
Gorakhpur
Kapilavastu
Kusinara
Mallas
Mathura
Gavisana
Matipur
PANCHALA
R. Yamuna
Indraprastha
Sugh
Ahichchhatra
Kalinga
Ganjam
Dantapura
Vengi
Vishnukundins
Amaravati
Nagarjunakonda
Kanchi
Kaviripaddinam
Chola
Tamraparni
Parasamudra
Simhala
Ceylon
PASCHIMA
PAYODHI
DAKSHINA
JA

Map of the Subcontinent
Mahabharata *Time*
Bhudev Sharma

Endorsements

It is with a deep sense of privilege that I write a few lines about this monumental book by Mrs. Kamlesh Kapur, whom I came across for the first time at one of the WAVES conferences about ten years ago. As an eminent educationist who has contributed to the academic world and to the training of generations of students, Ms Kamlesh Kapur is well qualified to write a textbook for high school students. There has been a momentous shift of paradigms regarding the historical view of ancient Indian civilization brought about by new archaeological, geological and more recently by genetic findings of the last two or three decades. Kamlesh Kapur has filtered the material from primary sources, research papers and monographs and has presented the material in a very lucid and engaging style in a text suitable for high school students. She has dropped the myths and assumptions about the history of Indian Civilization taught for the last couple of centuries, has reclaimed an accurate chronology of Ancient Indian History, all the while making it interesting. An outstanding job by any measure! I wish her all success.

The University of Memphis
Memphis, TN 38152, U.S.A.
January 10, 2010

B. N. Narahari Achar
Professor of Physics

"Portraits of a Nation — History of Ancient India" is a timely book.

Recent archaeological findings, scientific analysis and reconstruction of the movements of ancient people using DNA studies have shown that the assumptions on which ancient India and her civilization were studied in school textbooks for several decades were incorrect. Kamlesh Kapur's pioneering book brings together latest scholarly findings to provide a rational understanding of Indian civilization. I recommend it strongly for use in schools and for self-study."

Oklahoma State University,
and co-author of "In Search for the Cradle of Civilization"

Subhash Kak,

"India being the oldest living civilization today, and Indian diaspora increasing dramatically in the United States, a need for an authentic book with accurate and contextualized information has long existed. Portraits of a Nation – History of Ancient India is a very timely book that meets that need."

University of Massachusetts Dartmouth
285 Old Westport Road
Dartmouth, MA 02747

Bal Ram Singh, Ph.D.
Director,
Center for Indic Studies

Portraits of a Nation

History of Ancient India

Kamlesh Kapur

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Cover Picture – Brihadishvara Temple, Thanjavur, Tamil Nadu – Chola Dynasty and all pictures in the book, unless otherwise acknowledged, are contributed by *Dr Arjun Kapur.*

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Dedicated to

Hema, Keshav and Leela Shah my grandchildren;
Archit and Ayana my grand nephew and niece;
and millions of students all over the world

looking for facts of historical significance constantly surfacing through excavations, scientific research in many disciplines, and proper translation of Vedic and post-Vedic texts.

"Those who forget their histories are condemned – condemned to forever be second-class, to forever lack self-respect, to forever suffer loss of self-image."

George Santayana

"Cowardice asks the question – is it safe?
Vanity asks the question – is it popular?
Expediency asks the question – is it political?
But conscience asks the question – is it right?
There comes a time when one must take a position that is neither safe, popular, or political; but because it is right."

Dr. Martin Luther King, Jr.

One can also add the following – "History asks the question – is it factual?"

The essential purpose of writing a history book is to point out significant facts as they are and to depict these as honestly as one can. This book just does that!

Foreword

Yesterdays are indestructible. They remain subtly present in today and have an inevitable impact on tomorrow. It is this indestructibility of yesterdays that has made history an important discipline all over the world. Being a sizable segment of collective memory and a part and parcel of effective social psyche, history acts as a powerful vehicle of culture and tradition from generation to generation. History shapes and defines the social identity of a people in course of its process. It teaches men lessons to learn from the past. It acts as a source of morale in times of distress. This is why we must learn and teach history. Imparting education of historical knowledge should, therefore, aim at developing positive collective memory and healthy social psyche. In fact, historical knowledge is of use only when it contributes to our wisdom.

Equally worth keeping in mind is the point that pertains to historians. The historian's job is akin to that of a judge who judiciously scrutinizes the available evidence before reaching any conclusions. Like a judge, his aim is to further justice and social welfare. He is not expected to behave as an advocate who pleads the case of his client by highlighting facts that are favorable and suppressing facts that are inconvenient.

I am happy to note that Mrs. Kamlesh Kapur has in her mind the above basic considerations about history and historians while writing the present book. And this is something creditable in view of the fact that most of the works on Ancient Indian History lack not only a positive but also a judicious approach to history.

The distortions created in Indian history by biased attitudes and approaches – Eurocentric, colonial, missionary, and ideological, etc. – are too well-known to be repeated here. Mention may, however, be made of two false notions about Ancient Indian History and historiography perpetuated for over a century and a half.

One relates to the belief that 'no kind of man originated on the soil of India, all her human inhabitants having arrived originally from other

lands'. Repeatedly asserted since the nineteenth century, this belief has become an article of faith, not to be doubted or challenged. Even today several scholars vigorously plead that ancestors of all major linguistic groups in India, whether speaking Indo-Aryan, Dravidian, Austro-Asiatic or Tibeto-Burmese, are aliens. Not only that, it is being argued that agriculture (that is, the art of cultivation) of the major crops being grown in the country today has reached here from outside: wheat and barley from the northwest and rice from the east. And all this is being said despite the recent human and non-human genetic researches proving the contrary!

Another equally false notion, created and perpetuated since long, has lead to the general perception that ancient Indians had no sense of history. The epics and the *Puranas*, in this perception, contain mythology, not history. But, the reality is just the opposite. Ancient Indians had a deep and profound sense of history. They distinguished various literary genres of a graded historical nature like *Gaathaa*, *Naaraashamsi*, *Aakhyaana*, *Purana*, and *Itihaasa*, ranging from story to history.

Even otherwise, it is wrong to discard any type of literature as a source of contemporary history. Even a fiction may be a valid source of history. Consider this example: The poet says that 'The flower is smiling'. A trained historian would infer two facts from this purely imaginative statement: one that there is a thing like 'flower', and the other that there is an action like 'smiling'! Mrs. Kapur is, therefore, perfectly justified in taking the epics, the *Ramayana* and the *Mahabharata*, as a genuine source of a timespan of Ancient Indian History.

Stylistically the book is of a very high order. Mrs. Kapur has fully utilized her talent and experience to make it attractive to young minds for which it is meant. I would like to congratulate her for this welcome contribution.

SHIVAJI SINGH
Professor and Former Head of
Dept. of Ancient History, Archeology and Culture,
University of Gorakhpur, India

Gorakhpur
January 4, 2010

Acknowledgments

This book is a modest attempt inspired by a message from Aurbindo Ghosh, a great philosopher from our time:

"A time must come when the Indian mind will shake off the darkness that has fallen upon it, cease to think or hold opinions at second and third hand and reassert its right to judge and enquire in a perfect freedom into the meaning of its own Scriptures. When that day comes we shall, I think, [. . .] question many established philological myths—the legend, for instance, of an Aryan invasion of India from the north, the artificial and inimical distinction of Aryan and Dravidian which an erroneous philology has driven like a wedge into the unity of the homogenous Indo-Afghan race."

I humbly acknowledge the influence of my late parents—Biharilal Chopra and Shanta Chopra who inspired me to focus on facts and stay with the truth as shown by the evidence. I also feel privileged to have Mr. O.P. Ghai as my mentor for almost three decades. He constantly reminded me that anything which goes in print, needs to be read several times and then reread a few more times after an interval. His words reverberate in my mind every time I type a sentence.

I am grateful to several scholars who edited various chapters, gave valuable suggestions and encouraged me to finish it. My special thanks are to Dr. Subhash Kak, Dr. S. Kalyanaraman, Dr. Narahari Achar, Dr. Bhudev Sharma and Dr. Rabinder Kaul for clarifying points and settling discrepancies.

I am thankful to my son Dr. Arjun Kapur who created the format and provided valuable suggestions almost on a daily basis. This work would not have been completed without the help of my husband Surindra who patiently read every chapter several times and offered valuable suggestions.

For section 3, chapter 27, "History of Medicine and Surgery in Ancient India-Ayurveda", edits, clarifications and helpful suggestions given by Dr. Dilip Sarkar and Dr. Sunil Kumar are gratefully appreciated.

For section 3, chapter 29, "Music, Dance and Drama in Ancient India", most of the information emerged out of lengthy discussions with my revered music teacher, Late Krishna Dalal. Hence, this chapter is dedicated to him. This chapter was also graciously reviewed and edited by the eminent dance teacher Dr. Malini Srirama.

I am also grateful to Dr. Frank Morales, Dr. Shivaji Singh, Mrs. Meera Rao, Dr. Gayatri Kapur- sketches and artwork, Mrs. Sudha Natrajan- technical expertise, Dr. Venki Venkat- creating timelines format, Dr. Arjun Kapur- all the charts, genealogical trees and other graphic work, NASA for Rama Bridge, Research papers published by WAVES.

The second generation Indians who grew up in the USA were not only an inspiration for writing this book but were also part of the project. Many of these young professional edited the chapters and gave me helpful suggestions. I must acknowledge Manu Chopra, Kavita Mehra, Shaoli Sarkar, Mythili Rao, Sabeena Zindal, Rasesh Shah, Rahul Kapoor and Arjun Kapur for their valuable suggestions.

A number of people helped with suggestions and guided me to complete this work. I might not have mentioned all of them, but I am grateful to all these scholars and friends.

Finally, I am grateful to the artists and editors of my publisher who diligently fine-tuned every chapter.

Preface

Interpreting History

"The past actually happened but history is only what someone wrote down."[1]

The vast literature of India describes events of historical value. In the past several centuries, invaders and visitors came from all different countries. Some tourist such as Megasthenese came from Greece. Searching for knowledge, Fa-Hien and Hieun-Tsang came from China. The accounts of all these visitors/invaders tell us much about India of yester years.

All through the ages, history of India has been written and rewritten several times—each time with a different context. For example, the British wrote and interpreted historical events in the context of subjugation and colonialism. After the Second World War, Americans wrote Indian History in the context of Cold War with officially neutral India leaning towards Soviet Russia. After the collapse of the Soviet Union, the context has shifted to globalization with a new threat from world wide terrorist outfits. The historical accounts have been affected by all these political developments.

George Orwell wisely points out, "Who controls the present controls the past. Who controls the past controls the future."

Thus, historical narratives act as a powerful vehicle of culture and tradition from generation to generation shaping and defining social identity. Ignorance of past events is detrimental to the society as well as to an individual. In the words of historian Daniel Boorstin, "Trying to plan for the future without a sense of the past is like trying to plant cut flowers."

In the last three centuries historical accounts relating to Indian history were written by people from the departments of theology, social sciences and linguistics. They had to overcome difficulties arising from the following factors:

- Inadequate understanding of ancient languages of India such as, Sanskrit, Mleccha, Prakrit and Pali,
- Dependence on the translators with inadequate understanding of the texts,

- Gaps in the narratives,
- Many of the European historical accounts prior to the 15th century were flawed, because these were based on erroneous ideas about the size, shape and position of the earth.
- Nineteenth century 'race science' and colonial anthropological theories had an immense negative impact on the writing of Indian history.
- Grasping the accounts with the help of European experience, these writers used a large number of assumptions and gave us theories which are now untenable.

The Need for a New Book

There are many compilations already available on the subject, but most of them have been compiled from the perspective of non-Indian experience. This book will correct this problem.

In the last seven decades a wealth of new information has been constantly coming from researchers and scholars belonging to different fields of knowledge. Research in physical sciences and genetics, fossil studies, study of ecology of the ancient times have helped geologists, archeologists, marine archeologists and natural historians to bring forth valuable information about the origin and evolution of early civilizations and the development of languages and cultures. *History is no longer in the domain of social sciences.*

The task ahead for the compilers of history books is:

a. To embrace all available evidence,
b. To evaluate and include all evidence resulting from the discoveries of non-social scientists,
c. To treat the beginnings of human civilization as a part of natural history,
d. To drop inaccurate information based on assumptions, hypothesis and untenable theories,
e. To drop insignificant episodes and stray incidents,
f. To consider historical accuracy as the most important task and not political or ideological goals of those in power,
g. To examine, corroborate and interpret historical data with intellectual honesty.
h. To use the new technology of satellite imaging and determine the age of artifacts by using carbon-dating methods.

How This Book was Written to Meet These New Challenges

In the past six decades, new archeological and geological finds have surfaced, demanding revisions of earlier versions of Indian history. In the last one hundred years, a better understanding of the *Vedas*, *Puranas*, and other post-Vedic texts has emerged. This literary evidence needs to be considered. Many historians, researchers and scholars from various disciplines are challenging the old hypothesis and exploding the old myths. This new evidence points to the fact that the *Rig Veda*—the oldest human document—was created on the banks of River Sarasvati and in the Sapta Sindhu region. Extensive research has been done to evaluate internal evidence emerging from the *Rig Veda* itself. Based on all this new information, Bhishma Publications has compiled 18 volumes on the *Study of Indian History and Culture.* Many historians such as G.P. Singh, Dilip Chakraborty, Shiva Bajpai, P.L. Bhargava, Shivaji Singh, S. Talageri, and Michel Danino have included this new information in their books. During several conferences, the World Association of Vedic Studies has focused on the latest researches of historians, researchers, mathematicians, scientists, archeologists, geologists, cosmologists, linguists and marine archeologists.[2] Most of this research work is focusing on various aspects of Indian culture and civilization threadbare and when such work is finished, we will have those fine details of beautiful threads that make the tapestry. However this type of micro-study does not provide freshers with an overall picture, the quality, the texture and beauty of the cloth. These works are for the advanced students of Indian history. A need is felt to produce a simple book for freshers and high school students – highlighting facts as they are continually emerging from various sources.

This book is an attempt to create an authentic narrative of India's past – significant events, achievements, milestones, upheavals and misfortunes.

All of this material is taken from primary sources and from the research material prepared by historians while evaluating multiple sources.

In this book, a concerted effort is made to emphasize events which left a significant impact on the heritage of mankind and evolution of human civilization. Every attempt is made to reformulate historical information by dropping myths and assumptions used in the last three centuries. This narration attempts to reclaim the accurate chronology of Ancient Indian History on the basis of the currently available evidence.

How to Read This Book

The book gives a comprehensive overview of about 6000 years of India's history. Students interested in knowing about India's diverse culture,

pluralistic society and religions would like to focus on section 2, chapters 8-10, 12-13 and section 3, chapters 25-26.

Those students interested in the narration of sociopolitical events may like to concentrate on the topics related to the emergence of dynasties, formation of kingdoms, evolution of political system and institutions. These epoch events are given in the chapters related to the rise and fall of empires, as well as the intrusion and influx of people from other regions of the world.

Each topic includes key concepts and a brief introduction for the teachers. Extensive list of links and books are given in the footnotes and in the bibliography. Where Hindi or Sanskrit words are used, meaning is given in the parentheses. A separate list of those words is also given in the glossary. Those interested in further research on each topic will find useful exercises and enrichment activities at the end of the chapters.

A number of pages are devoted to the history of Southern India. The rich history of this region helps us understand the significant ways in which the people of the south have maintained the continuity of Indian cultural traditions.

Finally, both students and teachers will find an interesting discussion about historiography and sources of Indian history given in section one.

Format of the Book

In each chapter, the text is followed by the summary, key concepts to understand, questions that students are asked and enrichment material/ activities. Reference to source material is given at the end of the book as also with some important topics.

A bibliography is included along with a list of articles and internet links which may be recommended for enrichment activities.

The book is not just a chronicle of events. Written in the global context, it helps students build skill in relating past to the present, make global connections and analyze facts based on the primary evidence. The book also enables the students and the general readers in separating bias from the evidence.

Endnotes

[1] A. Whitney Brown, *The Big Picture*, Harper Collins

[2] WAVES has published three volumes of research papers presented in the conferences. These papers provide a good understanding of various aspects of historical developments.

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Abbreviations

AAM – Department of Archeology, Archives and Museums in Pakistan

AIT – Aryan Invasion Theory

ABISY – Akhila Bhartiya Itihasa Sankalan Yojana

AMT – Aryan Migration Theory

ASI – Archaeological Survey of India

BG – *Srimad Bhagvad Gita*

BBC – British Broadcasting Corporation

BMAC – Bactria Margiana Archeological Complex

EB – *Encyclopedia Britannica*

GSI – Geological Society of India

INHD – Indian Naval Hydrographic Department

ISRO – Indian Space Research organization

I-SVC – Indus-Sarasvati Valley Civilization

IVC – Indus Valley Civilization

KCHR – Kerala Council for Historical Research

NAMAMI – National Institute for Manuscripts

NDA – National Democratic Alliance

NIO – National Institute of Oceanography

NIOT – National Institute of Ocean Technology

NRSA – National Remote Sensing Agency

ONGC – Oil and Natural Gas Commission

RV – *Rig Veda*

TB – *Taittiriya Brahmana*

NASA – National Space Administration

GOI – Government of India

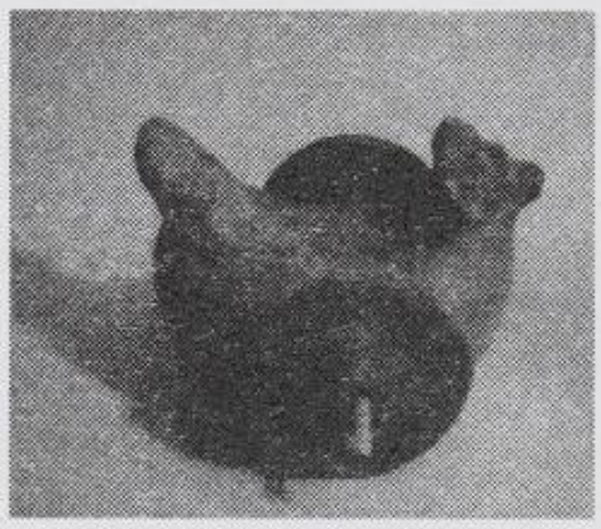
Disclaimers

1. The timelines in various chapters are tentative. They are based on the currently available evidence coming from various disciplines – social sciences and physical sciences. Some scholars have given much later dates for the events and many others have given even an earlier time frame. All the dates given in this book are based on the available data and are likely to vary depending on the new information which may surface later on. The sequence of events is important and that seems to be in order. For several millennia, Indians did not use the linear measurement of time. The year was divided in twelve lunar months and twelve solar months. The discrepancy between the two calendars was removed by adding another month. The cycle of 60 years was used with each year having a separate name. Cyclical measurement of time creates problems of dating the events. Fortunately, most of the genealogies give the sky graph at the time of the major events. The linear measurement of time started with *Vikram Samvat* in 57 B.C.
2. There are gaps in the chronology for the lack of information about the events in the intervening periods. Due to numerous invasions and other disasters, many libraries have been destroyed. Thousands of manuscripts still remain undeciphered. It is likely that the current gaps/discrepancies relating to the dating might be altered once these manuscripts are checked out and more evidence comes as a result of the excavations going on in various regions. For a few events, there are different dates given which only means that some historians have taken information from the *Puranas* and corroboration with other literary sources is lacking.
3. Several links and websites have been given in the book, many of these links may have changed or the contents removed from the site since the publication of this book. It is suggested that readers may go to the journals for the published papers or search it through Google.

4. It may be noted that the dates are mentioned as B.C. or A.D. even though most historians have used the dates as BCE (before Common Era) and CE (as Common Era). Wherever a quote has BCE or CE, the same has been retained as a part of the quote itself.
5. Many chapters include newspaper reports. The newspaper opinions are not considered to be an authentic source of history. However, the newspaper reports about the new discoveries, explorations and historically valid new evidence is admissible as credible new evidence. It also validates the point that the new evidence which is constantly surfacing may alter the chronology of Ancient Indian History.
6. This book has created an overview of the significant historical events, cultural achievements and landmark developments relating to the civilization of India. Many dynasties are not covered. Detailed histories of some of the regions are not covered. There are gaps in the time periods because of the lack of evidence and authentic information. However, where the history of a region is not given in detail, reference to the book for an in-depth study of that region is included in the Bibliography.
7. The contents of this book are based on the study of the books, references, articles, reports and other research papers included in the bibliography, not necessarily using direct quotes from every single book or article.

SECTION ONE

Historiography



1. Science of Historiography 3

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Chapter 1

Science of Historiography

Purpose of Studying History

1. History helps us understand people and societies
2. It traces change and explains how the society we live in came to be
3. History contributes to moral understanding and provides a sense of identity
4. Studying History is essential for Good Citizenship[1]

Skills Involved in the Study of History

1. The ability to assess evidence and conflicting interpretations
2. The ability to separate significant events from stray incidences
3. Gain experience by assessing past examples of change

> Shivaji Singh aptly points out, "Being a sizeable segment of collective memory and a significant part of effective social psyche, history acts as a powerful vehicle of culture and tradition from generation to generation. History shapes and defines the social identity of a people. It teaches men lessons to learn from the past. It acts as a source of morale in times of distress. We simply cannot ignore our history."

Science of Historiography

The Sanskrit—word for history is *Itihasa—iti+ha+asa*

Iti means the statement or an event has come to an end, which further means that there was an origin, progress and termination of an action. *Ha* means the knowledge of an event that happened has been obtained and *asa* means something happened or its knowledge existed.[2]

A very similar definition is given by Amara Simha[3]. He defines *Itihasa* as accounts of the past events (*Puravrtta*).

Many people question whether history was recorded in the Vedic and post-Vedic period and the answer is in the affirmative. There were various ways in which historical information was recorded and narrated. Those literary sources will be discussed in the following pages.

G.P. Singh emphasizes three main elements of Indian historical tradition:

1. *Akhyanas* (narratives)
2. *Itihasa* (past events)
3. *Purana* (old tale; ancient lore; legend) along with
   - *Gathas* (hero-lauds)
   - *Narasamsis* (eulogies of the warriors and princes of the past)[4]

Vedas have accounts of several events and wars among various rulers. Besides the Vedas, epics such as the *Mahabharata* and the *Ramayana* are narrations of epoch-making historical events. That India did not have historiography is therefore a mere prejudice. People who translated Vedas did not have the opportunity of reading the epics from the point of view of history. Historicity of the ancient Indian texts needs to be examined especially now when the carbon dating process of the archeological finds by Marine Institute of India and ASI has enabled us to determine the dates of the happenings of the events narrated in these texts. In this context, Col. J. Tod wonders, "Is it to be imagined that a nation so highly civilized as the Hindus, amongst whom the exact sciences flourished in perfection, by whom the fine arts, architecture, sculpture, poetry, music were not only cultivated, but taught and defined by the nicest and most elaborate rules, were totally unacquainted with the simple art of recording events of their history, the characters of their princes, and the acts of their reigns?"[5]

In the last three hundred years, Indian history has been written using the invasionist model. India's past was divided into three periods—Aryan, Muslim and British; each period starting with an invasion. Later when the names of these periods were changed to Ancient, Medieval and Modern, the model remained the same.

Indian history is not just a series of invasions; it is the march of a civilization and the expansion of a culture through crises and triumph.

Keeping that in view, in 1956, K.M. Munshi gave four distinct phases of Indian culture. According to Dr. K.M. Munshi, reformulation of historic eras may be done under the leadership of such great leaders as Shivaji, Guru Gobind Singh, Swami Dayananda, Vivekananda.

Since 1947, the current phase began. This phase is considered the age of cultural crisis.

It is therefore essential that we rearrange the important phases of Indian history.

Some difficulties encountered in constructing Indian History:

1. In the ancient times, there was a cyclical measurement of time. Each cycle of sixty years was repeated. Within the cycle, each year had a distinct name. Thus, the measurement of time was not linear.
2. Even after the introduction of the *Vikram Samvat*, the regnal year of a king was noted and not the *Samvat* year.
3. Sequence of the events was determined by checking if the event was pre-referenced or not.
4. Reckoning of the time was from *Kaliyuga*.
5. With the disappearance of many languages, the context of events was lost.
6. Accounts of many events were based only on one source.
7. Gaps in information were filled with preconceived notions.
8. Significant information was left out and new evidence was not included.

It is Important to Know About the Writers of Indian History

"Every age views history and its heroes in the light of its own experience and values". In India, since history is being reinvented and fictionalized by hundreds of Indian 'social scientists', 'humanities scholars' and politicians, it has become difficult to separate facts from the personal ideology and opinions of these writers.

It is hard to get an authentic picture of the past from the inadequate and often erroneous translations of the original texts. It is essential that history of India is written from the perspective of Indian experience and corroborated with all the other evidence now made available by researchers from various other disciplines.

New Words to Learn

- *Itihasa* means history
- Historiography is the science of writing history
- *Kaliyuga* – the age of darkness, this period began about 5111 years ago

Summary

It has been hard to trace the accurate history of Ancient India for many reasons. Some of the problems are inaccurate translations of the ancient texts, biased interpretation by the colonial historians, the loss of evidence due to natural disasters and the destruction of universities by the invaders.

Concepts to Understand

1. Every historian interprets history according to his own experience and the values.
2. The measurement of time in ancient India was done in terms of cycles of 60 years. Before the *Vikram Samvat*, the measurement of time was not linear.
3. In order to provide a correct perspective of significant events of the past, it is essential that evidence is taken from various sources such as geology, archeology, marine archeology, ecology and literature.
4. With the new evidence coming from the non social sciences, it is essential to corroborate our conclusions with all such data.
5. The science of historiography has been there in ancient India both as an oral tradition as well as a written tradition.

Questions

1. What is a primary source of history?
2. What is a secondary source of history?
3. What are the major problems that historians face while writing the history of Ancient India?
4. Why is it essential to rearrange the important phases of Indian History?

Enrichment Activity

1. In one page explain the difference between the Invasionist model of Indian History and the arrangement of phases as suggested by K.M. Munshi.

Critical Thinking Activity

1. An eminent archeologist, Dr. B.B. Lal has done an extensive study of fauna and flora as mentioned in the ancient texts. He mentions several birds, animals and vegetations which are native to India. These fauna

and flora did not exist in Central Asia. How does that affect our perspective about the origin of Vedic civilization in India?

Endnotes

[1] Excerpt from the speech made by A.P.J. Kalam, the former President of India in 2005

[2] *The Study of Indian History and Culture* vol.I

[3] Source: *Amarakosa* written by Amara Simha, 400-500 A.D.

[4] Source: *Ancient Indian Historiography: Sources and Interpretations*, G.P. Singh, 2003

[5] Quoted in *The Study of Indian History and Culture*, vol.I

Chapter 2

Questions of Approach

Will Durant wrote in his *History of Civilization*, volume I, "History is mostly guesswork and the rest is bias" For compiling a history book, the correct approach should involve taking the following steps:

1. Collecting evidence from various primary sources of history,
2. Making a list of those sources,
3. Providing a factual narrative of an event based on the evidence from these sources,
4. The readers may be asked to glean and examine and cross reference these facts.
5. Students may be asked to give their conclusions.

There may be a number of approaches used for the presentation of historical accounts and anecdotes. Four mostly used approaches are described here. The first approach is that of a student, who wants to know the past. Such a student would like to write an objective account of data obtained from facts which can be substantiated. The facts can be substantiated in the light of archeological finds, geological factors, coins, inscriptions and earlier literary works of writers. Such a person would like to trace the roots and continuity of values and record those positive aspects of the culture which helped it survive through the currents of time.

The second approach is to view the past in the light of modern requirements of social life. With this view in mind, the student would evaluate mistakes made in the past and point out how best one can avoid these mistakes and improve institutions. The third approach is that of a modern theorist according to whom the earlier civilizations were primitive and barbaric. With this supposition, he/she concludes that the evolution of science and technology has made modern society and its institutions superior. This is an *incorrect* approach and allows a student to make fallacious judgments, wrong assumptions and incorrect assertions. The fourth

approach is to print a few facts and shape these around political agenda of assorted political parties and vested interests. Unfortunately most of the time, we read history books written based on the last two approaches. It is important to understand that history has no place for politically correct interpretations, interjections and preconceived ideological notions. This text uses the first and sometimes the second approach.

Indologists are scholars involved in the study of various aspects of Indian culture and history. The Indologists using the third and fourth approach are the followers of the 18th-19th century colonial administrators and historians, such as Macaulay (Thomas Babington) and his followers, Max Muller, Monnier Williams, and John Marshall. In the last century, socialists and the media have joined this group of writers. Influenced by political parties in power, these writers often give a communalist spin to selected facts. The books written by these groups reflect bias, bigotry and guesswork. Political and separatist groups have their own agendas to distort facts. Out of this list, only the case of socialists may be taken. Their views on people and society are based on the economic interpretation of Karl Marx[1]. Their interpretation of history emphasizes the following key points:

a. Religion is the opium of society, hence people need to be detoxicated and if they refuse to be submitted to this process, they should be killed.

b. All through ages there has been conflict, struggle, oppression of opposition, suppression of those who disagree, civil wars, wars for expansion and control.

In 1917, with this model of mankind's past, a socioeconomic political system was created in Russia. This was an experiment in socialism.[2] Through their brief reign, the communist regimes created a pyramid shaped hierarchy of people and an exploitative government at the top which was and still is (in some countries) highly suspicious of its own categories (another term for classes), besides being genocidal and brutal. The idea of a classless society remained a dream.

How was the Writing of Indian History Affected by these Developments?

Jawaharlal Nehru, the first prime Minister of India was a great admirer of socialist experiments. Unfamiliar with the history of Ancient India, he encouraged historians of independent India to interpret historical upheavals in terms of economic class struggles. He felt that foreign invasions brought a respite to chaos and conflicts.

His brand of socialism did not work and about three quarters of a century later communism collapsed in the erstwhile Soviet Union.[3]

After the collapse of communism in Europe and several other countries elsewhere, Indian intelligentsia and historians had two choices:

a. Cremate their ideology as communism had died everywhere—only a couple of ghosts of dictatorships on the name of communism remain.

b. Turn to more enduring social and cultural traditions embedded in the long history of India and highlight them.

Their choice has been to carry on the socialist structure, howsoever redundant and bury the enduring traditions. This approach does not require thinking; therefore, it is easy to adopt.

> According to Dr. Koenraad Elst, "...most Westerners', (even the US government's) writing on political Hinduism is full of Marxist assumptions and projections. This is because of the predominant reliance on secondary sources of Indian history, almost invariably hostile and in very many cases Marxist".

Indian history has not yet come out of this chaos.

New Words to Learn

- Indologists – scholars involved in the study of various aspects of Indian culture and history

Summary

In a democracy, it is always possible to fool some people all the time and these people can be the source of power and sustenance for politically sponsored historians. Penning the history of any country should be above political power games.

Concepts to Understand

1. History can be interpreted in several ways depending on the ideology of the compiler of historical accounts.
2. Historians have used various approaches in interpreting the Ancient History of India.
3. Many historians who use sociological approach use categories and terms which did not exist in the ancient societies.
4. Communists analyze all events as a consequence of class struggle along economic lines.

Questions

The teachers may discuss how to detect the use of unhistorical approach. Handouts from some textbooks may be given for the purpose of finding which approach is used by the writers.

1. Analyze and comment on various approaches used by the compilers of history.
2. How do communists view historical events?
3. Define anthropology and sociology. How do these disciplines differ in their approach from a historians' approach to history?
4. "Prejudice is a burden that confuses the past, threatens the future and renders the present inaccessible."[4] How do ignorance and prejudice change our view of historical events and how do these affect the understanding of civilizations and diverse cultures of people?

Enrichment Activity

"Until the lions have their own historians, the history of the hunt will always glorify the hunter".

1. Critically analyze the above statement. Using your knowledge about the colonies and European empires, explain who the lion is and who is the hunter in this case?
2. Should the historical accounts reflect the hunter, the hunt and its effect on the hunted?
3. Will clearing biases and assumptions from historical narrative help the hunted?

Critical Thinking Activity

1. Do you agree or disagree with the following statement? Explain your answer: Giving the main idea of the chapter in the beginning of the chapter amounts to handing out teacher's/writers' already formed hypothesis/opinion to the readers.

Endnotes

[1] Karl Marx was a German writer who developed Communism as an ideology and suggested a sociopolitical system which would create a classless society.

[2] The popular name for the system is Communism.

[3] After the revolution of 1917, the territory of Russia and Siberia were given this new name.

[4] Maya Angelou, 'All God's Children Need Traveling Shoes'. This quote was in the *Reader's Digest,* July 1998

Chapter 3

Sources of History and Historical Evidence

Primary Sources

Primary sources are the original texts (manuscripts in the form of letters, diaries and travelers' log books) such as Vedas, *Mahabharata*, *Ramayana*, *Upanisadas*, and *Artha Sastra* etc.

Also the archeological finds at the major excavation sites and the remains of old castles, bridges or buildings; such as Rama's bridge linking India with Sri Lanka and Pandavas' castle in Delhi—then known as Indraprastha are considered primary sources.[1]

There are inscriptions, coins, rock edicts[2], manuscripts of certain literary works, pictures etched on rocks, sculpture showing jewelry of the figurines, potteries and fossils. All of the above fall in the category of primary source of evidence.

Secondary Sources

Reports and commentaries on the above sources and literary works of writers such as Kalidasa and later day writers are considered secondary sources.

For the correct analysis of historical developments, it is important to retrieve original sources. A writer leaning only on the secondary sources may end up creating a fictional history. For example, when a quote from the Vedas (without the accurate verse reference) is mixed with the opinion of either the author of a history book or of some novelist of modern times, it may result in a fictional account of the event. Sources such as this do not fall in either of the categories—primary or secondary.

Role of Primary Sources in the Reconstruction of Indian History

While searching for historical facts, one cannot ignore the vast literature of the ancient times and what is being revealed by modern developments in archeology, marine excavations, oceanography, geology, glaciology, astronomy or even genetics. To ensure accuracy in deciphering the age of different civilizations—particularly Indian civilization—we have to make the modern secondary sources subservient to primary literary evidence. For the sake of depicting as honest a picture of the past as possible it is absolutely essential to *corroborate all evidence* gleaned from various sources. This also means leaving out the use of modern categories of cultural identities and anthropological interpolation to describe the evolution of societies that had no concept of such terms and categories.

There are several ways to determine the life, culture and the social conditions of a country. Here is a list of some of the primary sources for Indian history:

1. Literary evidence – Vedic[3] and other ancient literature.
2. Archeological finds such as relics, inscriptions, structures of monuments and buildings at different sites, especially, the archeological discoveries made in the past sixty years. This evidence must be considered while determining the chronology and facts about historical events.
3. Geological finds explaining the environmental conditions of the times in question. These finds also clarify the chronology of historical events.
4. Astronomical evidence – The time frame of equinoxes, solstices and other auspicious dates for religious ceremonies given in the Vedic and post-Vedic literature reveal the approximate time of particular events and regimes.
5. The accounts of foreign visitors and religious pilgrims.
6. Linguistic evidence.
7. Fauna and flora mentioned in literature and depicted in artwork.
8. Coins, inscriptions, frescoes and, other ancient artworks that still exist
9. Genetic evidence.

It is important to cross reference the evidence obtained from different sources. In the interest of promoting scientific enquiry for truth, it is important that no chronological record or document be presented or accepted unless it comes from more than two or three independent sources.

Many of the western writers leaned heavily on their interpretations of ancient literature, partially read, half understood and mostly presented out of context or in the context of European chronology and the Biblical time frame. These writers were also influenced by political and theological interests of the colonial rulers.

Literary Evidence

Vedas were composed over a period of time by various sages and therefore the accounts found in them seem more authentic. It is not dogma of one person claiming to be a superhuman personality. Vedic and other ancient literature not only provide details of Vedic religion, but also make elaborate references to people describing their *Gotra* (clan) and *Vamsa* (family) at the time of marriages and auspicious ceremonies. This custom is still being followed. The bards would sing about the achievements and greatness of the ancestry of kings. These are known as *Gathas* and *Akhyanas* (stories). These literary sources thus contain the information about:

a. Natural and environmental conditions, geography of the regions
b. Various groups and families and royal dynasties
c. Crafts and occupations followed by the ancient communities
d. The household and social organizations
e. Legal, political and economic institutions
f. Religion

There is practically little distortion in the content of Vedas—of historic, political or social value because Vedic verses are in different rhythm schemes and the correct chanting has preserved its original content and the merit thereof.

Many western writers believe that these sources are not authentic because these books are not meant to be records of history. This is not correct. *Itihasa* is an Indian tradition. Vedic literature deals with all aspects of life idealistically and realistically.

Vedas and the later literature refer to the geography of the land. Mention of the rivers such as Sindhu, Sarasvati, Ganges, Yamuna and Sarayu to mention a few and the references to the peaks of the Himalayas—Mount Kailasa, Amarnath etc. lay down for us the abodes of the sages and often the boundaries of the kingdoms. Geographical location of many tribes such as Bharatas, Iksvaku and Matsyas is also provided. In the Vedic and post-Vedic texts the use of words such as *Nau* (boat), *Bhavsagar* (world seen as an ocean), and *Khavaiya* (one who moves the oars of the boat)

show that the Vedic people were marine people and they had contacts with nearby countries.

Most of the ancient literature mentions auspicious dates with reference to seasons. This shows that the year was divided in six clearly marked seasons.

Mention of the five earliest royalties and their genealogies (Purus, Anus, Druhyus, Yadus, Turvasha,)[4] is important information for early beginnings of written Indian history. The wars between the kings are detailed. These can also be verified with details given in the Puranas.[5] The wars between the *Suryavamsi* King Rama and Ravana – the King of Sri Lanka are the theme of *Ramayana*. It was first written by sage Valmiki. One can see it referenced in the *Mahabharata* also. Similarly about 5,000 years ago the famous global conflict between the Kouravas and the Pandavas is the subject of the epic story *Mahabharata*. This was written by sage Ved Vyasa, who lived during that time period and witnessed the events. In later chapters, several other important writers and their works will be quoted to build up the details of achievements of various kings.

In Vedic literature the use of stones and metals (for making tools and weapons), wooden pots and wooden chariots are mentioned. The gold and silver ornaments were in use because the words *hiranya* for gold and *rajat* for silver are found in the Vedas as well as other literature. Gold and silver threads were woven in silk. Other crafts such as making baskets, beads, and cloth, metal and leather armors are also described.

Vedas are a valuable source of information about social institutions, the role of a householder in society, place of women in family and society[6] and the legal and political system of those times. This information and the pattern of urban and village life of the Vedic period will be discussed in the chapter on the Vedic period.

Besides Vedic literature and the epics, the Jaina and Buddhist literature, several *Samhitas* of *Ayurveda* (science of life) and *Jyotisha* (astronomy and astrology), the *Artha Sastra* by Kautilya, and works of Kalidasa are important sources of Indian History. These will be discussed in greater detail when we talk about the period in which they were written.

In the past few decades, it has been found that the palm leaf manuscripts numbering at least 5,000,000 are in the hands of private owners in Uttar Pradesh, Bihar, Jaipur, Odisha and Kerala.

Some are near decay and others are acquired by the government for its archives. Once the information obtained from these sources is deciphered

by the epigraphists and linguists, many of our theories will be replaced by an authentic account of events.[7]

Accounts of Foreigners[8]

The earliest references to *Aryavrata* (another name for the Indian subcontinent) are found in the *Zend-Avesta.* Many historians from different countries are synthesizing evidence from foreign books with that from the Vedic and Puranic literature. This synthesis is pointing to strong links between early Indians and the people from Europe and Asia. The Avesta (the holy book of the Zoroastrians) refers to *Aryavrata* as Zoroastrians' homeland (*Airayana Vajjo*).[9] *While there is no reference to any other homeland of the Vedic people in the Puranas and the Vedas, the Iranian tradition traces their ancestry to a foreign land—Aryavrata.* They also mention their places of pilgrimage which happen to be in the northwest of India. Thus besides the corroborating linguistic evidence (the similarity of languages), literary references also suggest that Zoroaster and his followers were displaced by turmoils in the Sindhu area, and they migrated to Iran.

Several books written by Greek writers have references to India. Many of these accounts are based on what Megasthenese wrote after his visit to India. Though most of his accounts are lost, excerpts of his accounts are available as quoted by other Greek writers, such as Strabo, Arrian, Diodorus, Elder Pliny and Plutarch to name a few. Strabo has given details of Indian rivers, the city of Pataliputra, and administrative justice in that region.[10] According to Plutarch, Alexander of Macedonia not only did not win an easy victory but had to retreat in the face of the mighty power of the Nandas Empire. His account makes more sense because of the fact that Alexander did not go beyond the Indus River. He reached Ravi River with the help of local kings. Arrian in his book *Indica* describes the use of cotton textiles, pearls, leather shoes, and umbrella. He also writes about the military weapons and war practices of Indian soldiers. These writers wrote about Alexander's temper and character. Many scholars of later time extolled Alexander for the conquest of India leaving a remarkable impact on the culture and architecture of the country. Greek historians of that time do not mention any such achievement.[11]

Among the Chinese travelers and pilgrims, Fa-Hien (5th century) and Hiuen-tsang (7th century) wrote extensively about the culture and rulers of India at the time of their visit. These provide valuable information about the social and religious conditions of India. Taken with other *corroborating* evidence, these are valuable sources of Indian history.

Archeological Evidence

Archeological along with geological evidence is the most authentic evidence. The relics and artifacts found in the excavated sites are tested by what is commonly known as carbon 14 method to determine how old the relics are. It not only throws light on the facts already obtained from written records but also on those periods for which there are no records. At the excavated sites, old relics have been found—coins, seals, etchings, jewelry, tools, inscriptions, lay out of ruined buildings, pottery and other household ware, evidence of written language, terra-cotta figurines etc. These finds throw light on the life-style, food habits and customs of the people and social and economic conditions of the period. Since 1922 when Mohenjodaro and Harappa were found, Indian archeologists have excavated several sites in and along the dried bed of the Sarasvati River. In the words of K.N. Dikshit, "Advances made in the research and Indian epigraphy which constitutes one of the most important branches of archeology in India and the one which supplies the best foundation of history and chronology are as great and as varied. By means of the numerous important data brought to light...various missing links have been supplied; wrong views corrected, disputed points settled, fresh information added, so that our knowledge of Indian history has improved considerably". Similarly, it is with the discovery of gold, silver and copper coins at various sites, the history of the Deccan kings—Satvahanas—as given in the Puranas is corroborated, corrected and supplemented. At the end of each chapter, students are encouraged to point out at least one such source for the chapter. It is important to remember again that all such evidence must be taken along with other sources. Otherwise historians may construct wrong views of the events in the light of one find alone. The case in point is—discovery of some linguistic similarities between people of Eurasia and India shifted Vedic Indians from India and placed them in the regions of Central Asia and Southern Russia. We will discuss this theory of Aryan invasion in a later chapter.

In the meantime, India has to make a better effort at excavations along the path of Sarasvati River. Tourism Minister Jagmohan once said,[12] "Excavations in India have not been taken up in a systematic manner. People are not fully aware of the cultural sites and heritage in the country. We are now planning to take up excavation along the entire (Sarasvati) stretch from Adi Badri in Haryana to Dholavira in Gujarat."

As more coins and seals are excavated, more artifacts are deciphered and more manuscripts written in pre-Panini[13] Sanskrit are translated, historical accounts will

keep changing. The value of the so called authoritative accounts given by many eminent historians of the last three centuries is bound to be questioned and clarified.

In the last decade, Marine archeologists have found parts of buildings and fragments of building material submerged under water both on the western and the eastern coasts of India.

Geological Evidence

As already stated, the art of determining the age of the relics has advanced considerably since the discovery of remains of an urban civilization at the site of Mohenjodaro. Geological surveys, study in glaciology and the ability to give radiocarbon dates for nearly 500 sites along the Sarasvati River have made ancient Indian history more accurate. Sarasvati, Yamuna and Satluj rivers changed their course many times. Once upon a time Yamuna and Satluj were tributaries of River Sarasvati.[14] Sarasvati dried up and the seats of activity changed. Geologists are able to give a fairly accurate date of the drying of the river and changes in the course of other rivers. Since the Vedas refer to the sacred river Sarasvati so many times, the Vedas must have been written much before the drying up of the river. Radiocarbon date for the ancient site of Balakot (established in 4100-3800 B.C.) and that of Somnath attributes a much earlier date to these civilizations. New scientific techniques related to geology, metallurgy and satellite imaging have revolutionized our perspective of the chronology and the seat of Vedic civilization.[15]

Astronomical Evidence

In the last few decades, mathematicians with the help of computers have been able to link auspicious dates mentioned in the Vedas with the position of the lunar constellations and the time of the equinoxes and the two solstices. Every 500 years, the equinoxes and the solstices change about a week – these move back. If for example, a certain period in history is mentioned along with vernal equinox in the Cancer (June-July) and we know that at this time it is in the Aries (March), we can calculate that the time period in question was 6,500 years ago, in other words, 4,500 B.C. These references also tell us that the Vedic people knew about equinoxes, solstices and the earth entering the southern and northern hemisphere every six months. These are some very simple examples of their knowledge. Advanced students of history and the Vedas may find other highly technical aspects of astronomy known to the Vedic people in some of the recent books written by the scholars in this field.

Recently the Indian courts agreed with definitions of the words astronomy and astrology given in the English dictionary. They also accepted the *Encyclopedia Britannica's* explanation of the term – modern western science. Keeping these definitions in view the Supreme Court of India concluded that, "according to these standard books astrology is a science which claims to foretell the future or make predictions by studying the supposed influence of the relative positions of the moon, sun, planets and other stars on human affairs".

"It (astronomy) therefore requires study of celestial bodies, of their positions, magnitudes, motions and distance, etc. Astronomy is pure science. It was studied as a subject in ancient India and India has produced great astronomers, long before anyone in the Eurasian world studied it as a subject", the court has concluded. In the light of the above, it is necessary to check out all astronomical references in the literature of those times.

It is said that there are some 142 astronomical references in *Mahabharata* alone and most have checked out with the help of computer software now available to the researchers in this field. When these references are explained fully, we will find a great deal of interesting information about India's past.

Linguistic Evidence

There is a remarkable similarity between the European languages and Sanskrit. *Idom* for it, *Ad*, aye; *tat* for that; *Pittera* for Pedro or father and many other similar words led the nineteenth century historians to conclude that the Vedic people[16] lived in Central Asia and moved as nomads to India. Some writers even stretched their imagination to place these people originally in Norway and northern Europe, to settle in Asia Minor, Iran and India. These theorists mentioned Latin and European words but failed to mention similar words from Central Asian languages. They did not provide description of those languages.

On the preponderance of other evidence, scholars now conclude that the reverse of the Eastward movement happened. The Vedic people moved to other adjacent lands because of famines, political upheavals and other ecological factors. Rivers changed their course or dried up. These ecological changes made life difficult. For the affected communities, migration north-westward and eastward became a matter of survival. Recently another interesting point was made by scientists who have been studying the evolution of human speech. Their research indicates that formal languages emerged from hundreds of dialects spoken by people in the ancient times. More of this will be discussed in a later chapter.

Fauna and Flora in the Early Texts[17]

The description of flora and fauna in the *Rig Veda* point to a tropical habitat that includes parts of Afghanistan and the Indian subcontinent, Sri Lanka and Myanmar. The birds and animals such as *chakva, chakori*, peacock – *moar, hansa* – white swan, elephant – *haathi,* lion – *simha*, tiger – *bagh*; bull, cows, crow, fox; just to name a few are species native to India from the earliest times but there is no mention of existence of such birds and animals in Central Asia and the vicinity of Caucasus Mountains five to ten thousand years ago.

These species are found on the frescoes, hieroglyphics of early Indus-Sarasvati times and they are mentioned in the literature of those ancient times. Bears, monkeys, orangutans, and birds like *Maina*, *Garurha* are mentioned in the *Ramayana* and several other varieties of bipeds are mentioned in the *Mahabharata*. There is no mention of such species in the ancient literature of Central Asia. *Such accurate description of geography of India and its fauna and flora in the early texts makes these texts the primary source of Indian history.*

Coins, Inscriptions, Frescoes and Existing Art and Architecture

As mentioned earlier, during the last 50 years of excavation a vast number of artifacts and remains have been found during the excavations in the Indus-Sarasvati Basin. The seals, potteries, figurines and designs of the ruined cities were among these. Recently, coins from Kushana period have been found in Nepal.[18]

Inscriptions on the Buddhist Stupas, Hindu temples, Rock edicts, frescoes and caves in Ajanta and Ellora, the Elephanta caves and many temples[19] are not only primary sources of history but when carbon testing is done on all these monuments, it will help us determine the time frame of historical periods of various kingdoms.[20]

One such evidence has been recently found by archeologists.[21]

This story was published recently:

> "An earthen urn containing ancient coins weighing 16.3 kgs unearthed by some laborers during construction work at Watnar Kokernag in Islamabad on Wednesday, have been described as priceless by Department of Archeology, Archives and Museums (AAM). Providing details, an AAM team told Greater Kashmir that the coins belonged to the Hindu period of Harsha and Kalash. 'These coins are of Hindu period and were in vogue during the reign of Harsha and Kalash', said an expert.

> The urn containing copper coins was handed over to the department by the Deputy Commissioner, Islamabad in Pakistan. Although the department didn't give the actual number of coins in the urn but it informed that research would be conducted to decipher the language inscribed on the coins. The team of archeologists stopped all building work at the site and said 'We will conduct a survey in the area to explore the things of archeological importance'. It may be noted that the urn was brought to the D.C. office by the laborers working on the plinth for construction of a Dar-ul-Uloom. According to the reports, some workers were digging for the construction of a plinth when their spades hit the urn closed at the top. The present finding together with earlier findings of terra-cotta material at Letpora and Kalbharava of Maha Kailashwar at Qasbayaar Pulwama is third of its kind claimed by the department this year".

Coins are a primary source of history and so are these reports.

Evidence from the Research in the Field of Genetics

These new scientific discoveries prove that the early inhabitants did not come from Central Asian regions but were native to the land mass known as India.[22] "Our bodies are designed for the tropics, however there are ways the body can combat cold." The scientist further explains how the body reacts to subzero temperature and how does it defends itself in desert conditions.[23] This point vouches for the fact that early civilizations developed and prospered in the alluvial soil provided by river valleys in the *tropics*—not in the deserts of Central Asia, and certainly not around the Caucasus Mountains.

The DNA evidence rules out the existence of any racial difference in the populations of Asia and Europe. Geneticists also rule out the possibility of entry of any new racial group in India in the last 15,000 years.

Ongoing research in physical sciences like Paleobotany, Paleontology etc. will play a major role in determining the prehistoric past of mankind. Such evidence will leave no room for theories, assumptions and conjectures.

New Words to Learn

- Archeology – scientific study of the life of earlier people, based on the remains and artifacts dug out through excavations.
- Artifacts – relics such as pottery, weapons, ornaments and some remains of architecture.
- Geology – the science that studies the earth, especially its crust, structure and the plates of the earth.

- *Aryan* (distortion) – based on Sanskrit word Arya which means noble; it is an *adjective not a noun.*[24]
- Genetics – the study of genes and heredity.
- Fauna and flora – animals and plants of a certain region, environment or a time period.
- Astronomy – science of the study of planets and stars. In ancient India, constellations of planets and the position of moon around the fixed stars were studied to determine auspicious times for ceremonies. These positions were recorded in several of the literary texts of ancient India.
- Astrology – a science based on astronomy determines and predicts the effect of positions of constellations on the earth and life on earth.
- Numismatics – the study of coins, inscriptions and seals.
- Indology – study of Indian history, languages and culture.

Summary

A vast amount of information and evidence has emerged in the past sixty years. The conclusions of scientists and researchers in fields other than social sciences have given us a new perspective in reconstructing the geography of ancient India, its communities and the origin of Vedic culture. This new material is being considered as primary sources of history. This new evidence has changed many of the old *theories* and *assumptions* about India's antiquity and its culture.

Concepts to Understand

1. It is important to verify all the sources of history to construct an authentic account of an event.
2. If and when modern methods of dating all the available artifacts are used, it will be easy to discard previous theories of writers especially those writers who obtained partial information without adequate knowledge of the language of the original texts.
3. If the literary sources of the western writers can be used without a second thought to construct European history, similar treatment and due respect should be given to Indian literary sources; especially considering that much of the history of the post-Vedic period was written by authors who were contemporaneous to the main heroes and kings mentioned in the literary works.

Questions

1. Study the map on page 144 and list some of the sites where excavations have thrown new light on the early civilizations of the region.
2. What is the difference between primary sources of history and secondary sources of history?
3. A newspaper flash about the President of the USA, G.W. Bush (Junior), mentions the position of lunar constellation and the phase of the moon on the day of his oath taking ceremony. For later day historians, what type of evidence would this be considered?
4. What are the primary sources of history of a country?
5. Modern day feminists achieved equal voting rights a mere four scores of years back. Are they qualified to pass judgments on the gender relations of societies of 5,000 years ago?
6. The 19th century historians not only started with bias and preconceptions but also imposed on the world of ideas "a mythical history of ancient India and of the ancient world". Should students be made to swallow and stomach these unhistorical accounts?
7. How will the deciphering of original manuscripts help us understand the development of various branches of sciences and philosophy in ancient India?
8. Students may be advised to collect the newspaper items covering any major event in the past five years and asked to discuss if that is primary source or not.
9. An editorial and op-ed article may be evaluated. To what extent are these valuable as a source of history?
10. Commentaries were written by Greek writers based on *Indica*, the book written by Megasthenese who visited India during the reign of Chandragupta Maurya. How far are these commentaries an authentic source of history? In which category would these commentaries fall? Where would *Indica* fall? In which category would parts of *Indica* quoted by Strabo and Arrian fall?
11. Traders meet in a fair to exchange goods with gold; during the transactions, they exchange ideas. Later they tell these stories to their friends and relations which category does this information fall – primary or secondary?

Enrichment Activity

1. Use the following information and create another headline, write a short story around the theme: Changes in climate changes the civilization.

Fossil hints at India's mythical river: Many Hindus flock to the holy site of the Sarasvati[25]

Geologists in India say they have found an elephant fossil in the Thar Desert of Rajasthan, supporting earlier theories that the vast desert was once a fertile area. Once upon a time, Rajasthan was a lake known as Sambhar Lake. It proves again that there were once rivers like Sarasvati and civilizations were flourishing on their banks.

Critical Thinking Activity

1. New finds in Pakistan suggests two points:
   a. The archeological finds reveal the history of India
   b. There is a pre-Mohammad non-Islamic heritage of Pakistan—that is a part of the Hindu history and heritage of the Indian Subcontinent.

When new nation states are carved out, what are their beginnings and how do these affect their early history?

2. Read the following statement about the activities of the Archaeological Survey of India and answer the questions given below it:

Evaluating new evidence surfacing because of continued excavations by the ASI

"ASI has been continuously digging out new evidence of older civilizations on land and off shore.

Their successes in dating the artifacts have generated enough information to doubt the incontrovertible theory of Aryans as nomadic tribes coming from some place in central Asia. Whether they come from moon or central Asia is a theory and it needs to be debunked theoretically and using common sense."

Those who oppose this effort are diehards, who forget that history as a correct analysis of events in the light of tenable evidence transcends political agendas, ego and pride about their first thesis. After all with new technology, new evidence can more accurately be dated.

   a. Should history be reformulated in the light of the new evidence?
   b. What is the role of opinions in distorting historical evidence?

c. Why do scholars hesitate to change their original theory? Students may be encouraged to guess.

3. Evaluate the following news item and discuss the merits of adjusting and correcting old books of history

'In India, Marking the Paper Trail of History 30,000 Help Catalogue Manuscripts'

Evaluate the following excerpts from the news report[26] about the ongoing search for old manuscripts taken up by NAMAMI and discuss the merits of adjusting and correcting old books of history:

"Launched two years ago, the National Mission for Manuscripts[27] is a five-year project to catalogue for the first time India's ancient documentary wealth and ensure that basic conservation practices are followed to halt their rapid decay. Officials say that India is the largest repository of manuscripts in the world, with an estimated 5 million texts in hundreds of languages.

"We are creating a manuscript map of India. The survey will present new facets to our intellectual heritage," says Sudha Gopalakrishnan, chief of the National Mission for Manuscripts. The project will not take the volumes from their owners but merely document what is available and help in conservation. "The key abstracts of all the ancient knowledge found in our manuscripts will be available digitally for the world to see."

The officials of the manuscript project say the nationwide survey will open a window to India's ancient knowledge systems: religion, astronomy, astrology, art, architecture, science, literature, philosophy and mathematics."

a. In the above paragraph, what are the primary sources mentioned?

b. How will the plan of digitalization of manuscripts help the writers of history?

4. Evaluating primary evidence

Here is a recent report regarding a discovery of a rare seal which was found in the coiffures of a jeweler in Ujjain, India.

Dr. Hrishikesh is a surgeon in UK, also a numismatics enthusiast, who happened to see this seal 6" square with a jeweler in Ujjain. He reported this find on India Archeology and Indian Civilization lists.[28]

"The entry is titled: 'Dr. Hrishikesh Shenoy's discovery of an Ujjain Jeweler's Seal' The album is titled: Ujjain Jeweler's 6" sq. seal with Sarasvati hieroglyphs".

Read the story discuss how the discovery of new hieroglyphs change or affect our ideas of past events. The student may also take images from the link and develop a project about the work of numismatics.

Endnotes

[1] See some excerpts of the article on retrieving manuscripts at the end of the chapter for enrichment purposes.

[2] Royal orders written or carved on rocks

[3] Relating to Vedas

[4] David Frawley, *The Rigveda And The History Of India*

[5] *The Study of Indian History and Culture* by Bhishma Publications-1997, vol.1

[6] Hindu marriage ceremony emphasizes the role of both men and women in family and society. The vows made today are exactly the same as were written in the Vedic texts.

[7] Vishal Agarwal's post in Indian Civilization group, dated 3-25-05.

[8] Compilers of history have to take account of not only what Alberuni wrote but also evaluate personal memoirs written by Muslim invaders and their scribes. These could include *Malfuzat-e-Timuri* by Timur Lang, and the accounts by Utbi — to give just two examples. Eliott and Dowson have done a great job of translating some of these books in their '*History of India as Told by its own Historians*'.

[9] *The Study of Indian History and Culture* by Bhishma Publications-1997, vol.1 The Zoroastrians spoke of their land as *Airyana-vaejo-* 'the Aryan home'. The modern name Iran is the same as Aryan.

[10] Discussed in section 3

[11] Source of these exaggerated claims is not revealed and bibliography is not provided to cross reference sources.

[12] NDA government, 1996-2004

[13] Pre-Panini means before the time of the sixth century grammarian Panini

[14] Elephant fossils found in the Thar Desert and its significance about the early beginning of life and climate of the country.

[15] S. Kalyanaraman also David Frawley

[16] In the 18th-19th century, the new word Aryan was coined to refer to the Vedic people and their ancestors.

[17] Source: *The Homeland of the Aryans: Evidence of Rigvedic Flora and Fauna & Archaeology* by B.B. Lal

[18] Read full report in the chapter on Kushanas in section 3

[19] Several temples and frescoes have been found in many other neighboring countries such as Cambodia, Thailand, Vietnam and Laos to name a few. These were under the cultural influence of India.

[20] References to these sources are given in the bibliography.

[21] From:http://www.greaterkashmir.com/Full_Story.asp?ItemID=1388&Cat=1 5 Zee'qad 1425 AH Srinagar Saturday, December 18, 2004 Islamabad, Dec 16-04, this site is in Pakistan but the area was part of India before 1947.

[22] For enrichment, one can see recent articles published on the subject. HISTORY IN OUR GENES — Aryan Invasion/Migration WRONG "Recent findings in population genetics overturn long-held theories" N.S. Rajaram *Out of Eden: The Peopling of the World* by Stephen Oppenheimer (2003).

[23] Source: Article from *Readers' Digest*, Indian edition, March 05 'Extreme Survival Guide' by Mark Adams and the quote is from the book, *Surviving the Extremes: A Doctor's Journey to the Limits of Human Endurance* by Kenneth Kamler

[24] The word Aryan as a race did not exist before 18th century. There is no mention of Aryan as a race, language group or a class of society in literary accounts of the historians before 18th century.

[25] Reported by Narayan Bareth BBC reporter in Jaipur date- Dec.02 - source: http://news.bbc.co.uk/1/hi/world/south_asia/2534775.stm

[26] Source: Article, 'In India, Marking the Paper Trail of History 30,000 Help Catalogue Manuscripts' By Rama Lakshmi. Special to *The Washington Post*, Monday, June 20, 2005; C01; washingtonpost.com

[27] NAMAMI stands for National Mission for Manuscripts

[28] An explanatory note is mirrored at http://spaces.msn.com/members/sarasvati97

Chapter 4

Honesty in Sifting Evidence and Problems of Interpretation

Role of Interpretations, Conclusions and Judgments

In the previous chapter, the role of primary and secondary sources was discussed. From that discussion, two important points emerge: how does ignoring vital evidence affect historiography and secondly, how does interpretation affect understanding of main sociocultural developments.

Many of the history books written (translated) during the nineteenth century left out most of literary evidence because of the language problems. What little was picked up by writers was not correctly interpreted. Except the language similarities, no other corroborative evidence was considered. The context in which the information was used is not given.

Out of the vast literary and other evidence, if what is selected is presented out of context, major errors are likely to occur in the presentation of historical facts. For example, information relating to geography, environment, fauna and flora in the Vedas was not taken into consideration, as a result ancient people of the Indian continent were mistakenly thought of as those who had come from elsewhere.

Interpretation of Vedic texts is difficult because the texts used many rhythm schemes unfamiliar to Europeans who tried to translate. Two hundred years ago these were challenges historians faced. Fortunately, research in several other sciences is bringing out new information about the origin and history of Indian civilization helping historians get a better idea of the past.

With a plethora of new evidence emerging, honesty in sifting it has become very important. Selectivity of material ignoring the full context gives a distorted picture and confuses the readers.

A hundred years ago Rabindranath Tagore said that, both imagination and sympathy are necessary to put life into dry and dead facts and to bring disparate historical facts together. "It is contempt and lack of sympathy which distort historical history". Affected by personal experiences and biases, many historians are tempted to use opinions in place of facts. Learning about history of a country is also learning how to separate facts from opinions and then disregarding the later.

The ways to check if an account is accurate and credible:

Is the source of the quotes used by a historian included?

Are the references used included in the bibliography?

The credibility of many history books becomes questionable if these books leave out significant facts/events in Indian History. Leaving out recent archeological finds in various river valleys (especially the basins of Indus on the west and the dry river bed of Sarasvati in the east – from the mouth of the rivers to their deltas) makes these sections less credible. A bibliography may help.

If no positive or significant achievement is given anywhere in an account, selection of sources may not be an honest selection; because all civilizations have some success stories.

Some time ago, the President of India[1] questioned the credibility of the portrayal of India and its civilization in books and newspapers. He said, "In 3000 years of our history, people from all over the world have come and invaded us, captured our lands, conquered our minds. From Alexander onwards, the Greeks, the Turks, the Moguls, the Portuguese, the British, the French, the Dutch, all of them came and looted us, took over what was ours. *Yet we have not done this to any other nation.*[2] We have not conquered anyone. We have not grabbed their land, their culture, and their history and tried to enforce our way of life on them. Why? Because we respect the freedom of others. That is why my first vision is that of FREEDOM."

Why do historians ignore these facts?[3]

This quote from the president of India does not provide an answer to the question but it does point to continual effort of the indologists and the media to project an unbalanced view of India's past. He further questioned, "Why is the media here so negative? Why are we in India so embarrassed to recognize our own strengths, our achievements? We are such a great nation. We have so many amazing success stories but we refuse to acknowledge them. Why?

We are the first in milk production.

We are number one in remote sensing satellites.

We are the second largest producer of wheat.

We are the second largest producer of rice.

Look at Dr Sudarshan; he has transformed the tribal village into a self-sustaining, self-driving unit. There are millions of such achievements but our media is only obsessed with the bad news and failures and disasters".

These facts are rarely reflected in history books. A significant part of learning history is to examine if the depiction of historical events is balanced or not. For building a correct perspective we may conclude with a few quotes from renowned thinkers and historians: French philosopher Voltaire, who said more than two centuries ago: "I am convinced that everything has come down to us from the banks of the Ganges, astronomy, astrology, metempsychosis, etc. . . It does not behove us, who were only savages and barbarians when these Indian and Chinese peoples were civilized and learned, to dispute their antiquity".

Will Durant said, "India is the motherland of our race and Sanskrit the mother of Europe's languages. She was the mother of our philosophy; mother through the Arabs, of much of our Mathematics, mother through Buddha, of the ideals embodied in Christianity; mother through the village community of Self government and Democracy. Mother India is in many ways, the mother of us all".

Summary

It is important that historical narrative emphasize significant events and developments which affected not only the course of Indian History but also influenced the progress of mankind. Stray and minor incidents are not very relevant for acquiring the correct perspective of a country's history. Stressing on one sociological aspect alone may give a skewed and an unfair version of the past.

Concepts to Understand

- Historical narrations often become inaccurate if the writer is biased.
- Affected by personal experiences and biases, many historians are tempted to use opinions in place of facts.
- Learning about history of a country is also learning how to separate facts from opinions and then disregarding opinions.

- In the last two hundred years, many scholars described India's past and its civilization in glorious terms. Later on, the desire for justifying colonial rule, Indian history was distorted. This later distorted view is reflected even today in many of the history books written about India.

Questions

1. Why is an honest interpretation important for writing a history book?
2. What is a biased interpretation? How do adjectives make history unhistorical?
3. What is the role played by the way material is selected? Students may consider examples from the *Study of American History*. How would it read if half of the pages are devoted to slavery and there is no mention of discoveries and inventions made by Americans?
4. Students may take one ruler from the past and write a profile using first the positive attributes and then one paragraph on the negative aspects. Students may compare the two versions. The teachers may explain the word 'stereotyping' and lead students to discuss how selectivity and usage of adjectives can cause stereotyping and prejudice against societies and historical figures.
5. 'Communist interpretation of history stresses that victims are always at fault and the killers were justified in their bloody acts'. How does such a view of history affect our understanding of historical facts?
6. Is it valid to interject modern categories of cultural identities and anthropological interpolation the evolution of societies which had no concept of such categories?
7. How does a historical account become less credible?
8. Can new evidence deconstruct old theories? Provide at least two examples.

Enrichment Activity

1. Define the words: bias, stereotyping, selectivity, authenticity.

Critical Thinking Activity

1. 'A dog was trapped in a mud slide, mud slides often happen in this region'.

'The excavation at Kalibangan site revealed that its occupants had suddenly abandoned the settlement, "even though it was still in its mature

stage and not decaying". B.B. Lal and Robert Raikes, the two archeologists involved concluded that, it was abandoned because of scarcity of water from river Sarasvati'.

Both the above-mentioned statements are facts. Which one is significant and should be a part of history book?

Endnotes

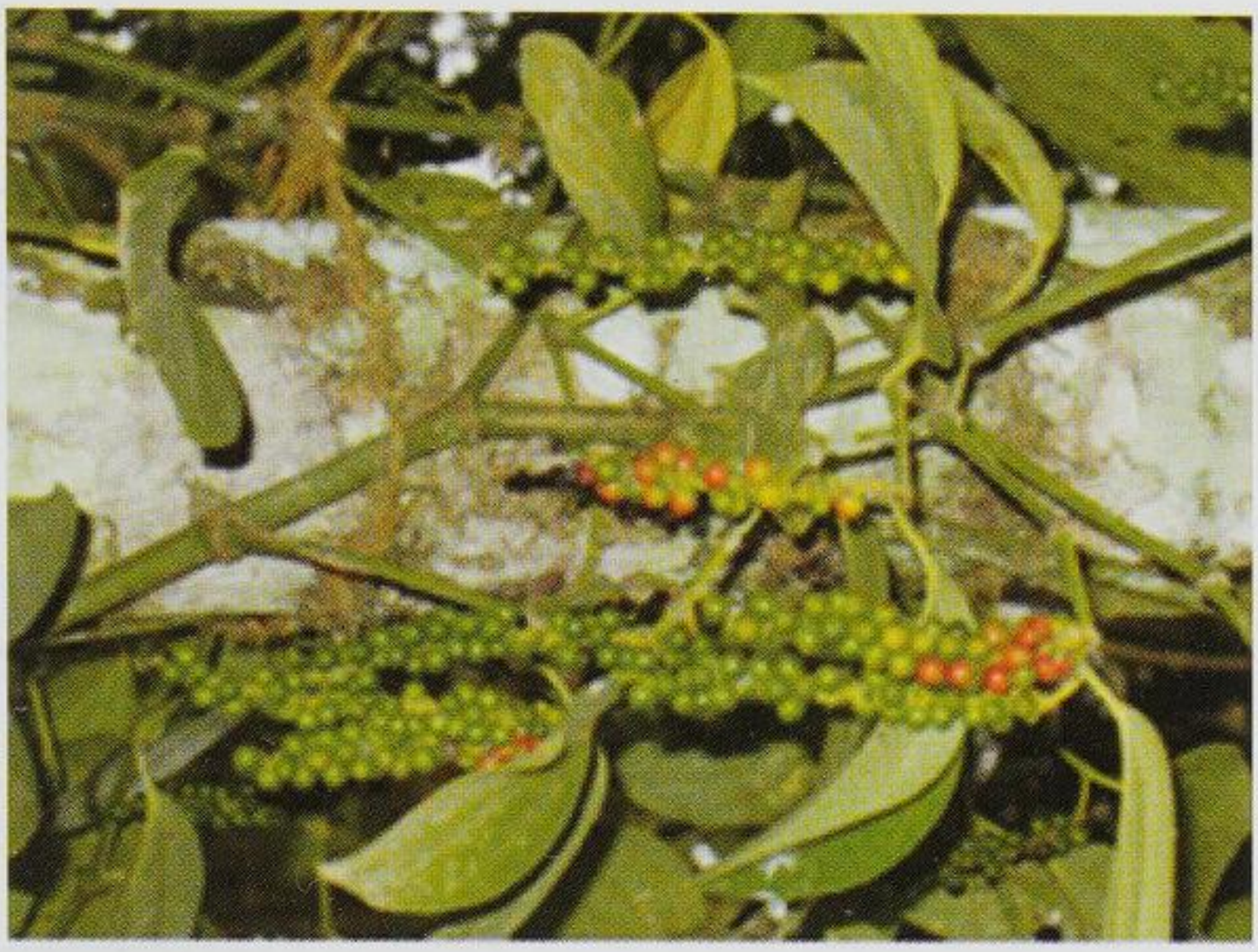
[1] Honorable A.P.J. Abdul Kalam, the President of India, 2004

[2] Emphasis is mine

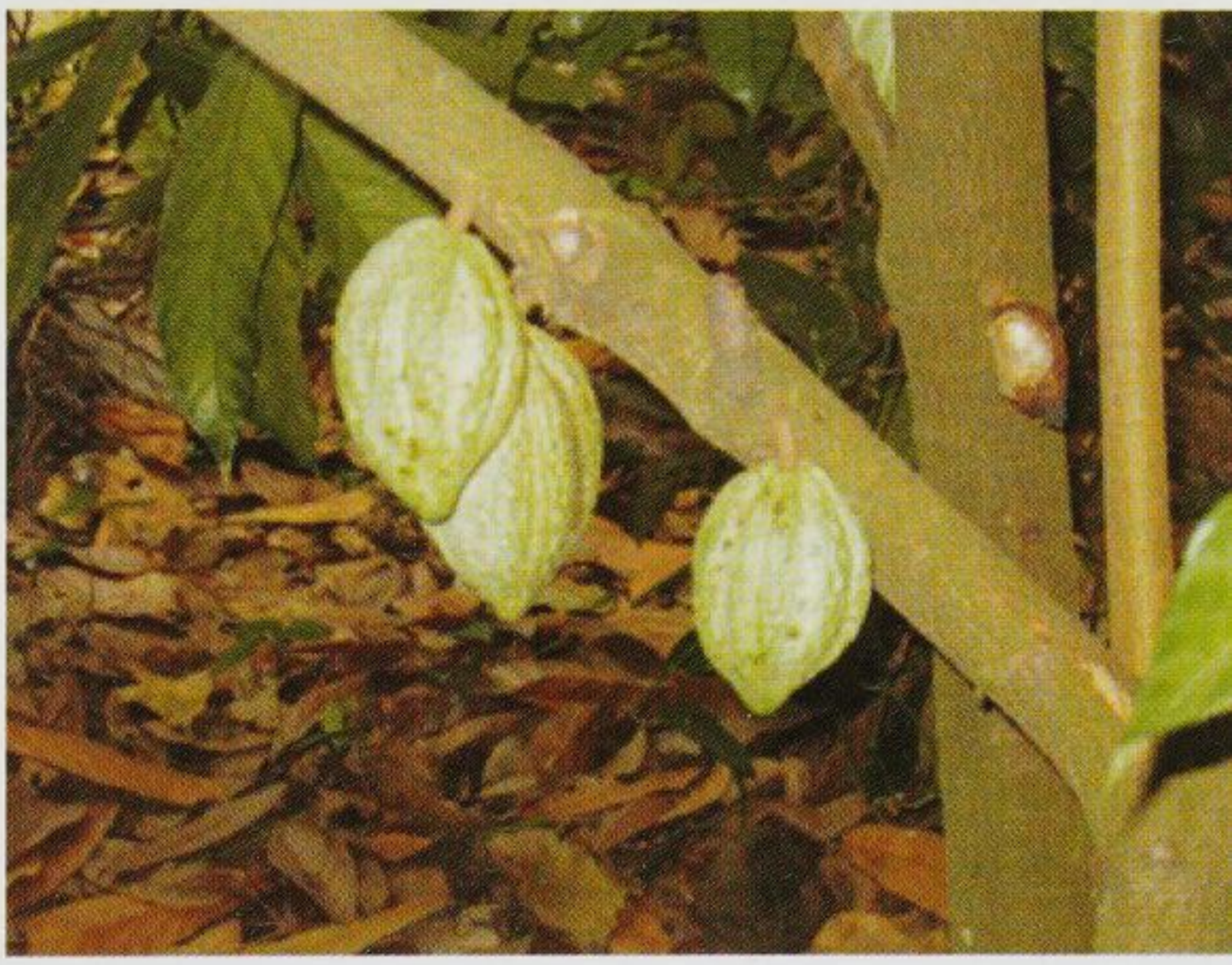
[3] See section 1, chapter 2

Gangotri

Gomukha Glacier from where Ganga begins



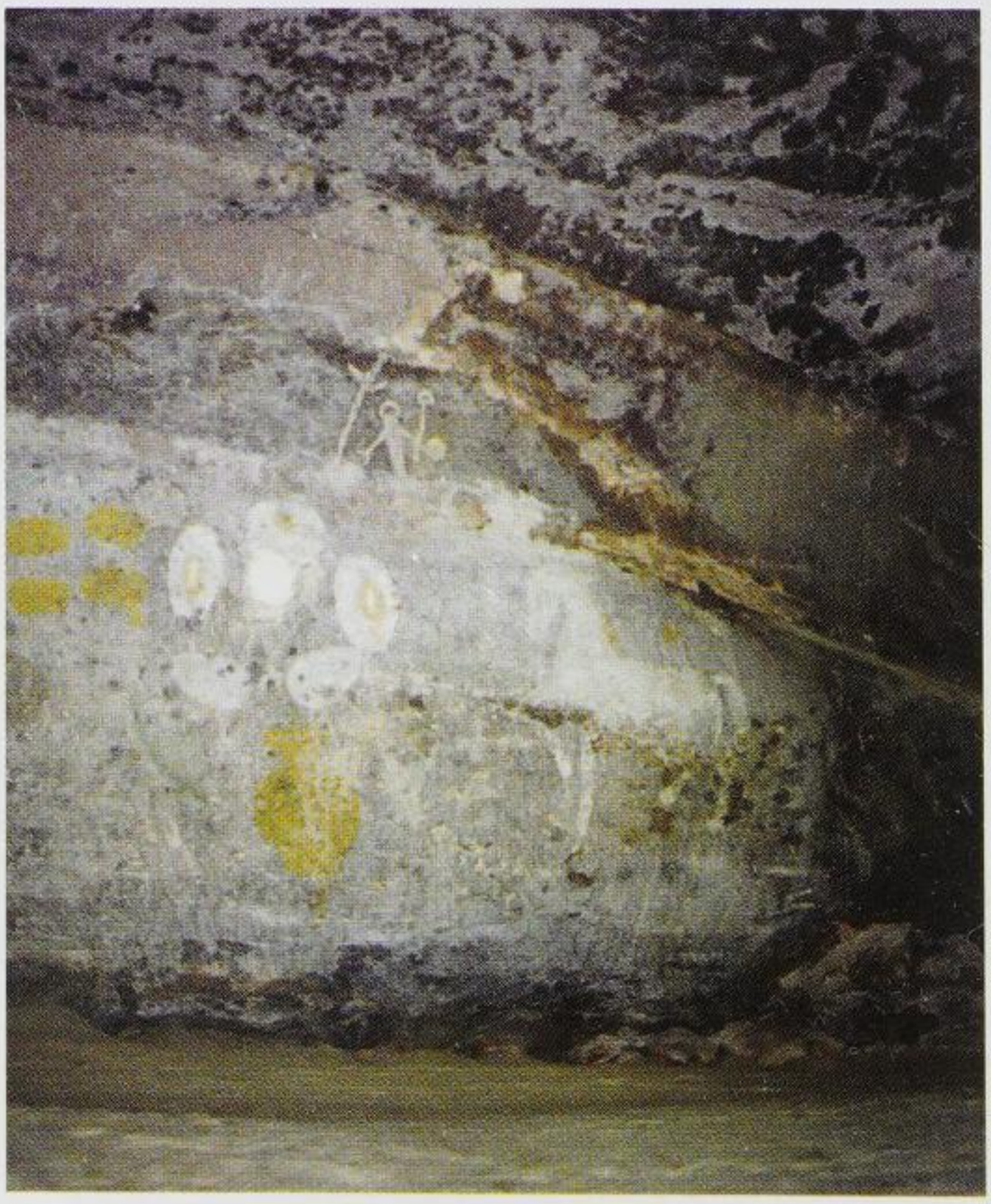
Pepper plant – Tekaddi



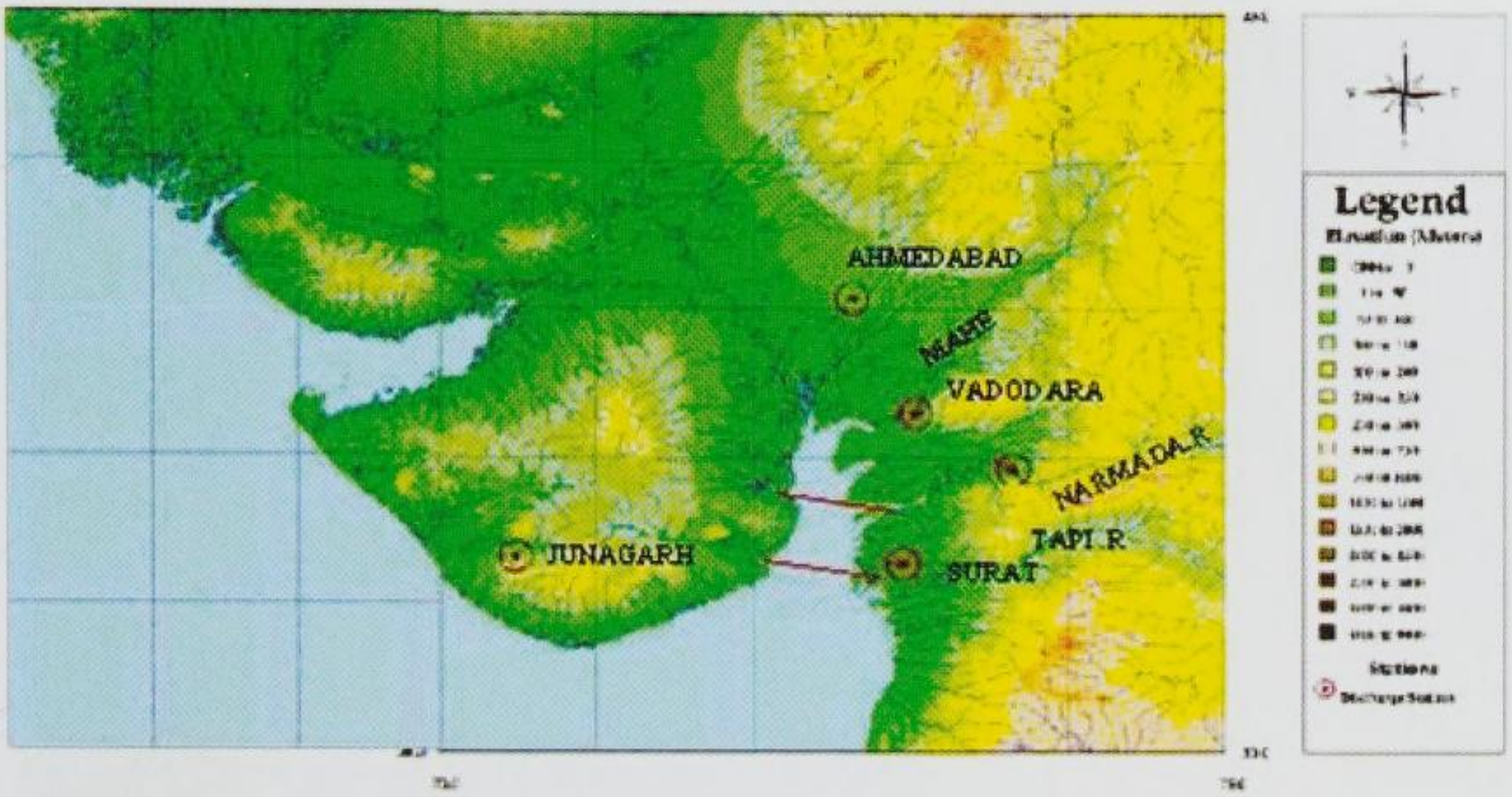
Green cardamom – Tekaddi

Cinnamon tree – Tekkadi

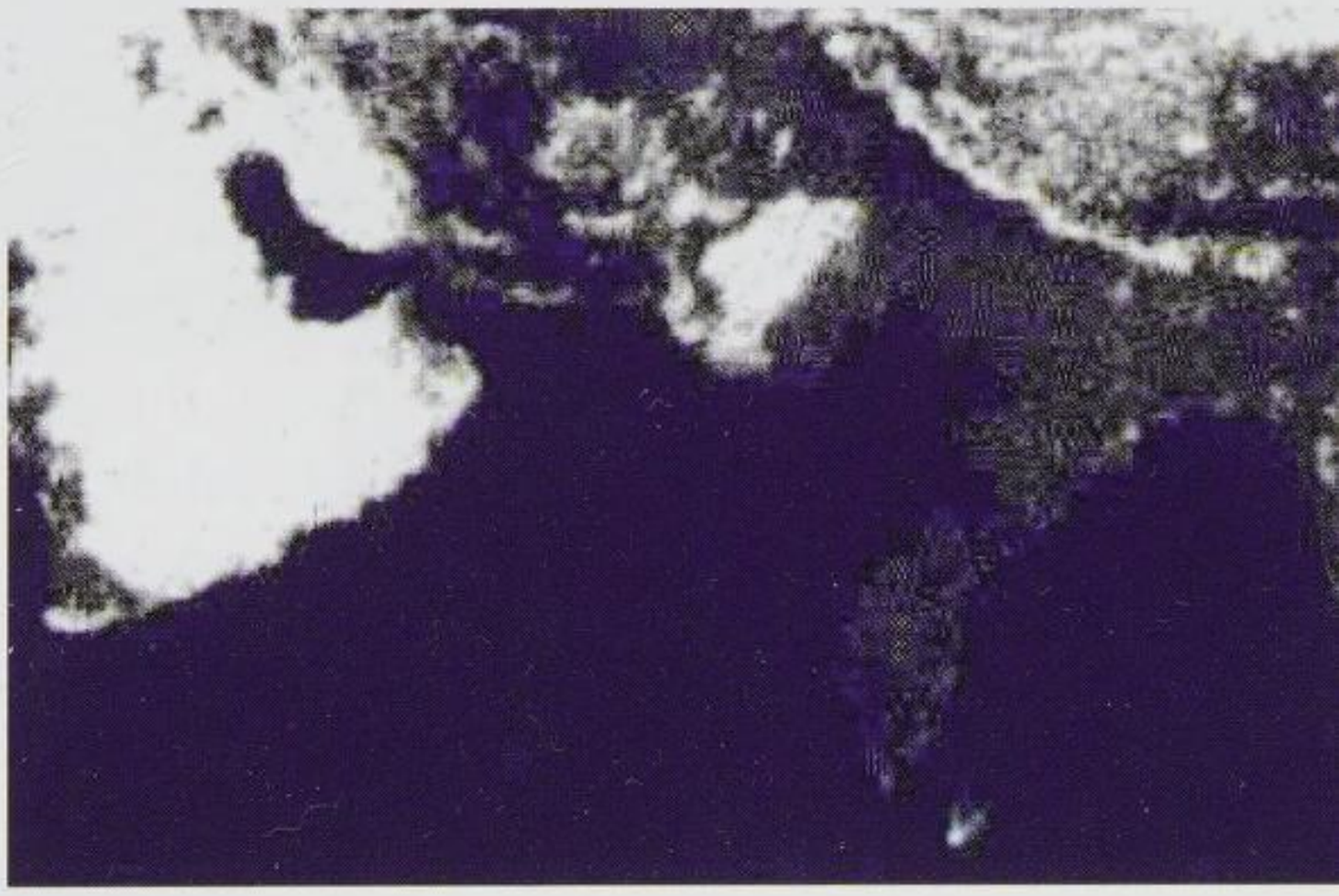
Endangered species – Indian elephant



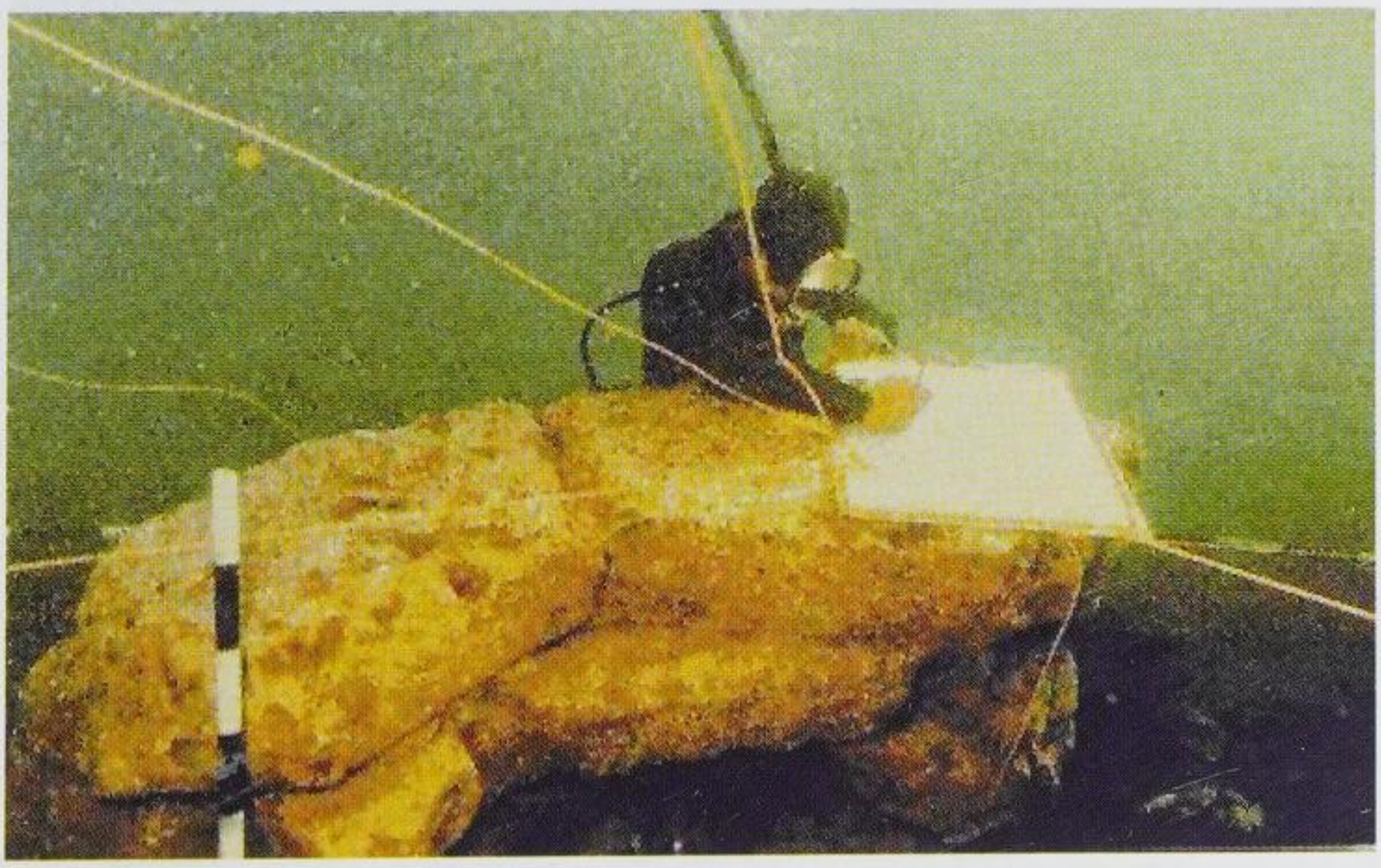
Bhimbetka rock painting
Courtesy: Katherine K. Brobeck



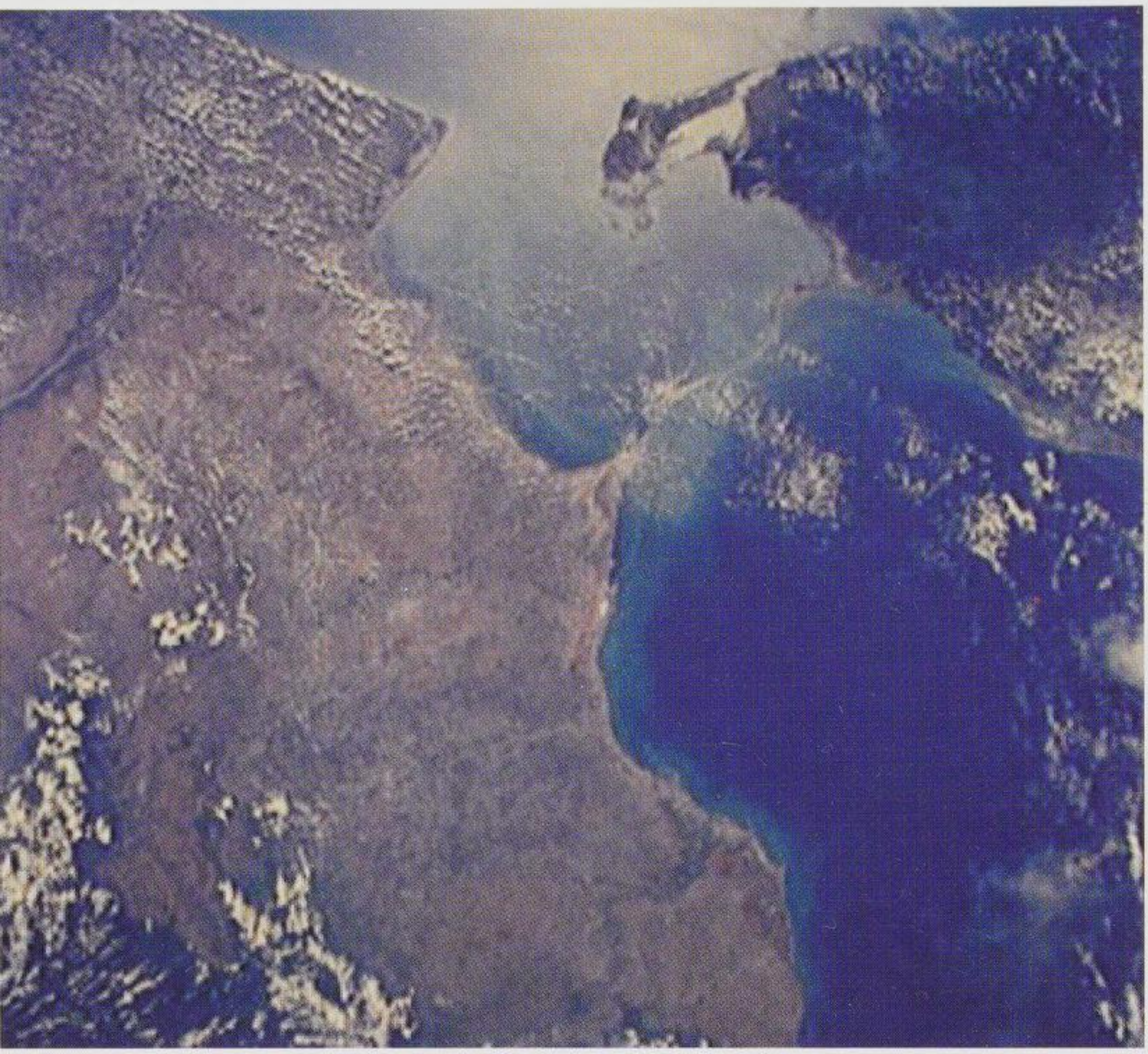
The riverbeds of Narmada and Tapti Rivers on the west coast
Courtesy: Dr. S. Kalyanaraman



Sarasvati River Basin (N.W. India)
Watershed Development Project Area
composite satellite image
Courtesy: European Space Agency



A diver studying large stone structures found under the sea
Courtesy:
Dr. S. Kalyanaraman



Adam's Bridge—Rama's Bridge
Courtesy: About Facts Net and its licensors

Satellite photo images of the formation of the bridge between Dhanushkodi and Talaimannar Island in Sri Lanka
Courtesy: Sandhya Jain

Siddhartha – Gautama Buddha
Courtesy: Parma Devi Karuna

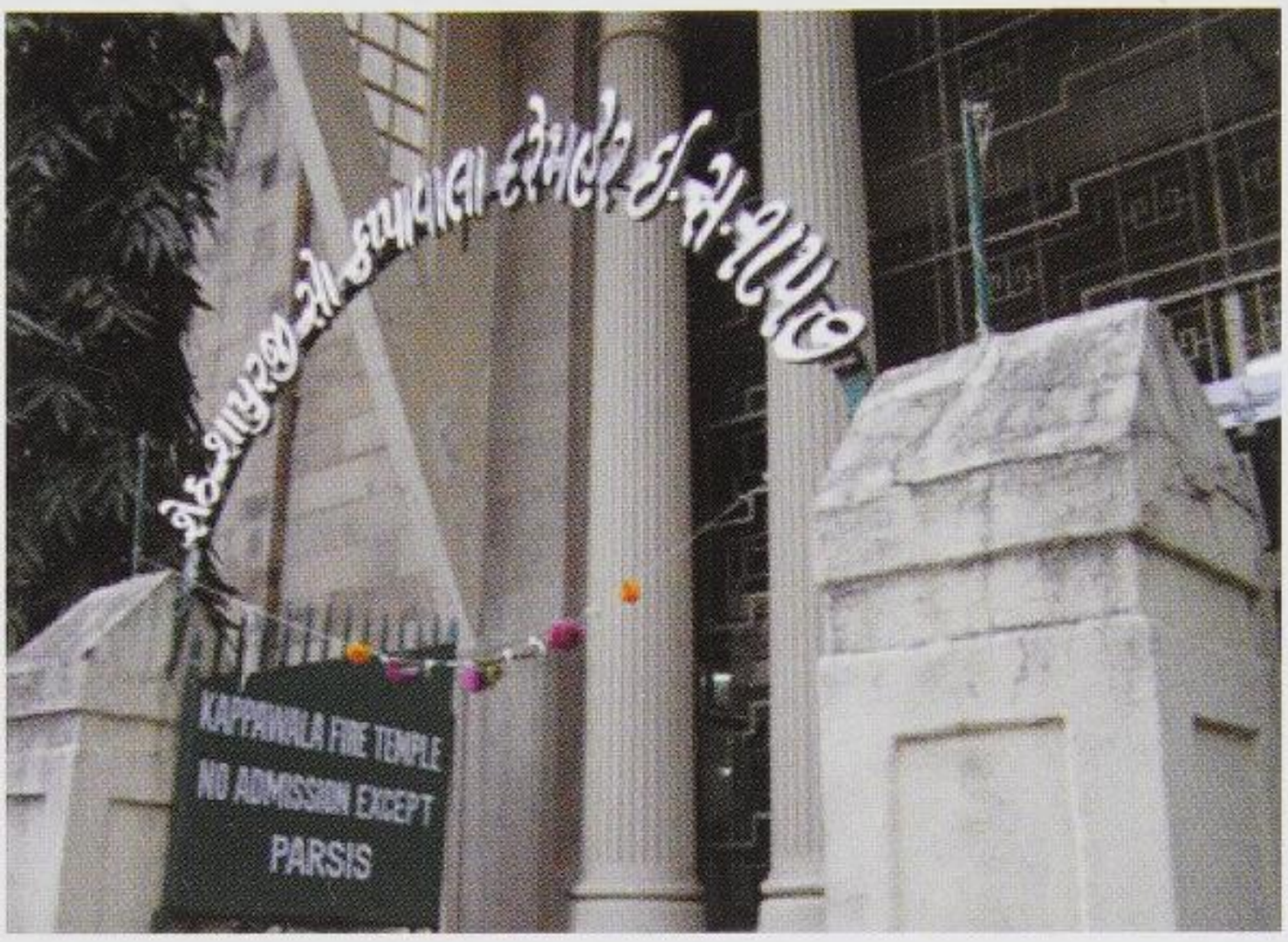
Sanchi Stupa built during the reign of Satvahanas
Courtesy: Parma Devi Karuna

Mahavira, Founder of Jaina Dharma

A Svetambar Jaina Temple at the foot of the hills at Parasnath

A closeup view of the temple at Pawa Puri where Lord Mahavira obtained Nirvana

Above two pictures courtesy: Dr. Anand M. Sharan



Entrance of the Kappawalla Agiary Fire Temple on Sri Ratan Tata Road, Tardeo, Mumbai

A girl offering prayers with flowers

Parsi Wedding – the shy bride and the groom pose with the family

All the pictures on this page courtesy: Freny Werbinski

SECTION TWO

Origin of Civilization and the Rise of Early Dynasties

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Chapter 5

Geography of India

The Subcontinent of India

This chapter will focus on the geography of the Indian subcontinent. It will also discuss some other important points such as where South Asia is, and if there is a distinct South Asian Culture.

Misconceptions about the Name of the Country

The earliest name of the subcontinent according to the *Rig Vedic* sources is *Bharata.*

In the *Rig Veda*, *Vishvamitra Gathina* uses a powerful phrase:

Visva mitrasya brahmedam raksati bharatam janam

Bharatam Janam refers to the nation of Bharata. We find the use of the word *Bhartiya* (as extension of the name Bharata) for Indian.[1] The epic *Mahabharata* refers to the name of the entire subcontinent comprising several kingdoms as Bharata.

"By South Asia is meant the area that throughout the centuries was known as India but which now includes the modern nation-states of India, Pakistan, Bangladesh, Sri Lanka,(Afghanistan)[2] and Nepal. Generally, then, when the term India is used, in ancient history books it refers to the whole subcontinent before 1947…."[3] When Alexander invaded what is the westernmost part of Pakistan, he and all the other Greek historians mentioned that he invaded India. The kingdom of Gandhara which supported Alexander in his expedition included parts of Afghanistan. When the British talked about the Indus Valley ruins and the excavations at Harappa, they again referred to that region as India. In the Kurukshetra War, many western and north western kingdoms are mentioned such as, kingdoms of Gandhara, Kamboja and Sindh. These are now in Afghanistan and Pakistan.

Even as a region, "South Asia" did not exist until the US State Department decided to create the term. One can thus conclude that when anyone talks about the frescoes, arts, architecture or literature of India, one must use the term India and not South Asia. For example, Alexander visited or invaded India, the Vedas were written in India, and Hindus lived and created the civilization in India. Visitors from all over the world visiting the country mentioned the word Hind or India. Similarly when Columbus was looking for spices and riches of India, he again was referring to India. Stumbling on the continents of Americas, he even named the people as Indians. This name sticks to the Native American population even today. Many books about India written by the Greek and the Muslim writers are named *Indika.*

Replacing South Asia for India every now and then in the books is thus *fallacious.* It is *misleading and confusing* for the readers. It serves no purpose.

Hindutva[4] **and *Hindustan***

Does the use of the word Hindustan, which literally means land of the Hindus, denote *Hindutva*?

It is essential to clarify the word *Hindutva* because it has been used in the very recent history of independent India in different contexts. And often these contexts are wrong. Hindu *Dharma*[5] which is a synonym for the essence of being a Hindu is called *Hindutva.* It is a cultural and a *Dharmik* identity of being a Hindu. Hindu *Dharma* or its essence has not been intolerant in the past 5000 years of its recorded history. When the Zoroastrians and the Jews came to India and took asylum here, they considered themselves *Hindustani*—meaning belonging to *Hindustan.* Thus, "Hindu" - Sindhu is defined in the *Rig Veda* as a 'natural ocean frontier' and hence the land surrounded by three sides by the ocean and by mountains on the north side is India with a geographical identity and a cultural unity."[6] *Hindutva* has nothing to do with the name Hindustan which simply means the land of the Hindus.

Who is a South Asian?

As mentioned earlier, all through its long history, the subcontinent of India extending from Afghanistan to Burma, from the Himalayas to Sri Lanka with various kingdoms ruling from different capitals presented a geographical and a cultural unity.

This geographical entity has been known as Bharata or India. At the time of independence in 1947, four separate countries were carved out

from the subcontinent. India is the largest country with a billion people living in this region.

The history of India is not the history of South Asia and when we talk of today's South Asia (while referring to India), it becomes a wrong title, because nothing about these four countries is common except their past—and that is the history of a geographical entity once called Bharata.

In this book we will only use the terms Bharata or India, which included kingdoms from Eastern Iran to the Bay of Bengal and the Himalayas to the southern tip of the Indian Peninsula.

There is no person in any of these countries today who can be considered a South Asian. There is no such thing as South Asian culture. For the region up to 1947[7], it was Indian culture with all its diverse shades and colors. After that time, the culture of the regions of Bangladesh and Pakistan became homogeneous and composite. According to the description of their own people, those are Islamic cultures. Today Indian culture as viewed and respected in India is largely a combination of Hindu values reflecting an assimilation and cultural diffusion but retaining its pristine essence. India's cultural diversity includes the Zoroastrians, the Jews, the Muslims, the Sikhs, the Buddhists, the Christians, the Bahai, and the Jainas along with the Hindus. The latest data on the composition of various minorities is: "Out of the total population of 1.028 billion in India as at the 2001 Census, the Hindus were 827 million in number and constituted 80.5% of the population of the country. The Muslim population stood at 138 million comprising 13.4% of the population".[8]

According to the same report, a majority of the Hindu population (74%), resides in villages as against 64% in case of Muslims. Thus at present, the religious breakup of the population is: Hindus 80%, Muslims13%. The remaining 7% consist of Christians, Sikhs, Jainas, Buddhists, Parsees and the Bahais.

Languages

There are 22 officially recognized languages. Besides these 22, there are 33 different languages and 2000 dialects which have been identified. English and Hindi are the main official languages of the country.

India is a multilingual country with many strains of faith traditions. A significant part of India's diversity is that all the minorities have freedom and opportunity for advancement.

The minorities in India have not only enriched the culture of India, but they have been making significant economic and political contributions to the nation for a very long period. In less than 60 years of independence, several Jews, Zoroastrians and Sikhs have held high military posts. Out of 12 Indian Presidents to date, three have been Muslims and one Sikh. Dr. Manmohan Singh – the current Prime Minister of India (2010) is a Sikh. They all are Indians. Zuben Mehta is an Indian and so is Ravishankar and in addition to these two are a billion plus people who live in India.

The American born children of the immigrants from India can proudly wear the label Indian origin and drop the South Asian regional identity because, that identity does not exist for them or any other person living in India!

Geography of India

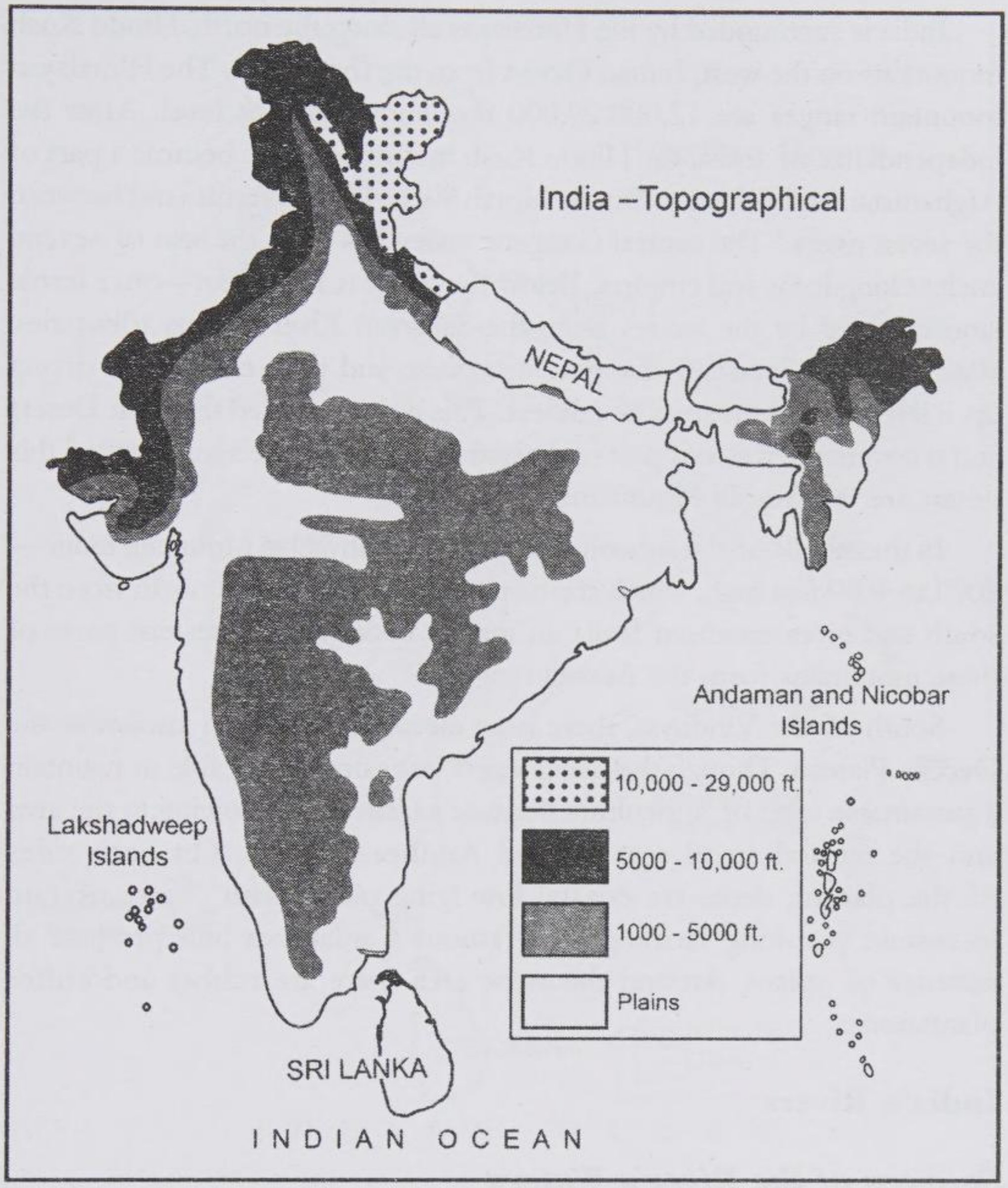
Introduction

In the following pages, the physical features, the rainfall, the river systems, the natural resources and other relevant geographical points will be discussed. The maps and tables are included to help readers understand the facts about Indian geography and how it shaped Indian civilization and continued to affect its evolution down the centuries.

The Tropic of Cancer passes through the northern part of the subcontinent. As a result, the Southern half of the continent has a tropical climate. India is considered a tropical country. During winter months, the northern half of India is 3 to 8 degrees warmer than other countries with similar latitudinal location. This is because the Himalayan mountain ranges prevent the cold polar air from penetrating into the plains of India. In countries such as USA, China and Iran, there are no barriers like the Himalayas. Therefore the cold arctic air affects areas of as low latitude as 20 degree north.

India—its Physical Features

India is of the shape of a peninsula but the way it is cut off from the north by the Himalayan mountain ranges, it is considered a subcontinent. Starting from 35 degree latitude in the north, it extends up to the 5 degree latitude north. The subcontinent lies between 65 degree longitude east and 95 degree longitude east.



India has green valleys of alluvial soil made rich by the deposits from its rivers. Most of the country below the Gangetic valley is located between the Tropic of Cancer and the equator and has dry hot summers in the central parts, rainy humid conditions in the coastal areas and hot summers and cold winters in the areas on the foothills of the mountains.

Based on the physical features, India can be divided in four regions—the northern mountain ranges extending east to the west, the Gangetic and central plains, the Deccan plateau fringed with the mountain ranges both along the western and eastern side of the plateau and the low lying coastal plains.

India is surrounded by the Himalayas all along the north, Hindu Kush mountains on the west, Indian Ocean from the three sides. The Himalayan mountain ranges are 12,000-29,000 feet above the sea level. After the independence of India, the Hindu Kush mountain range became a part of Afghanistan and Pakistan. On the North West side it is fertile land between the seven rivers.[9] The central Gangetic valley has been the seat of several ancient kingdoms and empires. Below the valley is Rajasthan—once fertile land irrigated by the waters from the Sarasvati River and its tributaries. With the river Sarasvati changing its course and then completely drying up, it left the western areas as a desert. This desert is called the Thar Desert and it covers the western part of Rajasthan. Towards the south east of this desert are the Aravali Mountains.

In the middle of the subcontinent is the Vindhyachal Mountain range—2000 to 4000 feet high, which seems to almost separate the north from the south and gives southern India an insular benefit. The western parts of these mountains form the Aravali range.

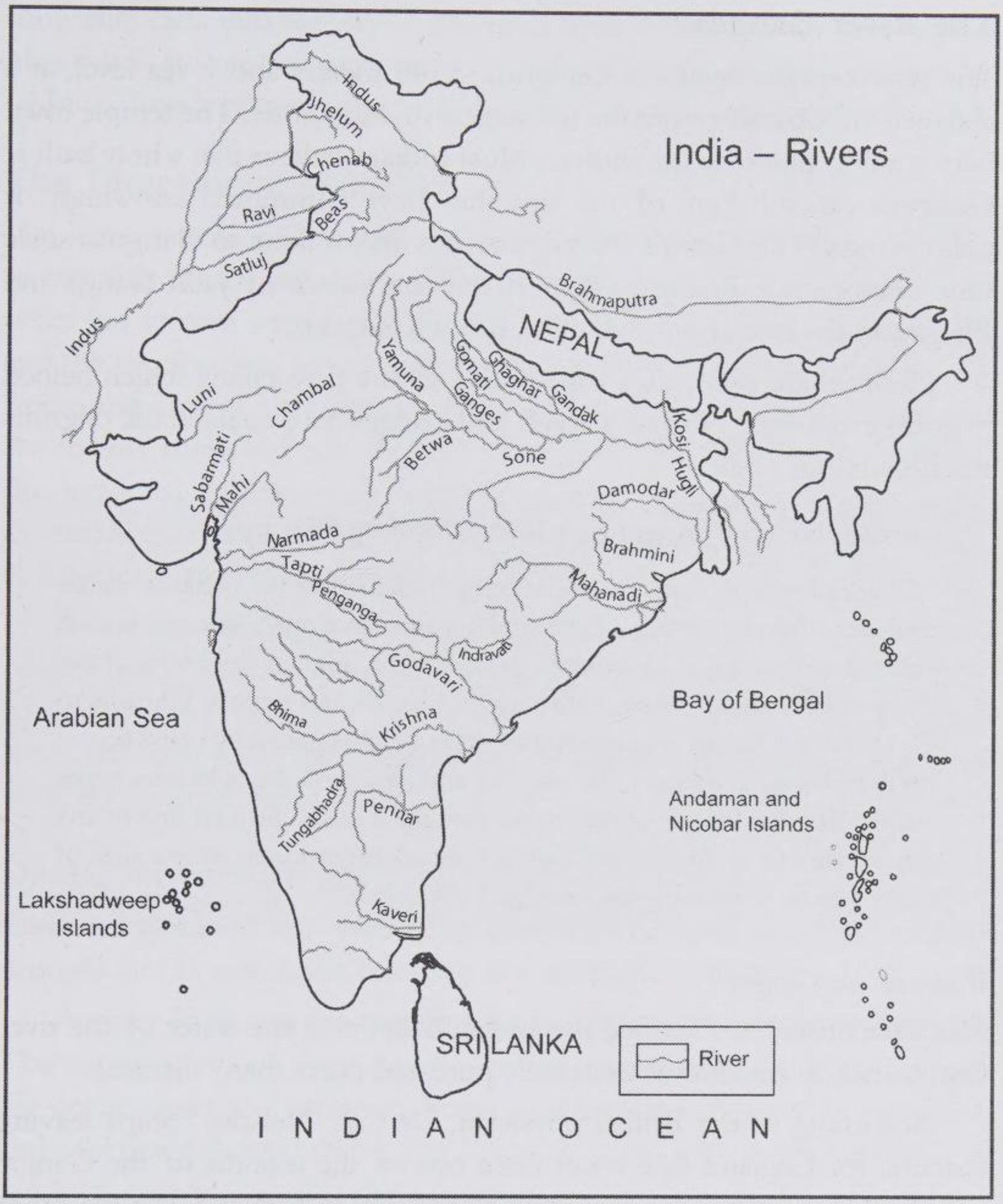
South of the Vindhyas, there is an elevated dry region known as the Deccan Plateau. Though the plateau gets less rainfall, it is able to maintain a sustainable level of agriculture because of the rivers flowing in the area and the natural small seas around Andhra Pradesh. On both sides of the plateau, there are coastal low lying plains with plenty of rain to sustain year-long farming. The famous Cardamom hills produce all varieties of spices. Around the same area there are rubber and coffee plantations.

India's Rivers

Sources of the River's Waters

About 40% of the world's water supply comes from the Himalayan Mountains. India gets a bulk of the water from the Himalaya in the form of perennially flowing rivers. All the northern rivers flowing towards the Bay of Bengal and the Arabian Sea begin from the glaciers of the Himalayas. The most prominent of these glacier lakes is the Mansarovar. From this flows the Brahmaputra, the Ganges and several other tributaries of these major rivers.

India has several rivers crisscrossing the subcontinent making agriculture possible even in the areas where the rainfall is not adequate.



Major Rivers

In the northwest, the *Sapta Saindhava*[10] basin refers to the valleys between the seven rivers: Indus in the west, Sarasvati in the east and Jhelum, Chenab, Ravi, Satluj and Beas in between. These valleys could sustain agriculturally self-sufficient communities and kingdoms due to the deposits of alluvial soil.

The central part of northern India is known as Gangetic valley with Ganges (Ganga), Yamuna, Sarayu, Gomti, Kosi, Sone, Ton and Chambal rivers and several of their tributaries. In the east, the river Brahmaputra starting from the Eastern side of the Mansarovar Lake flows east and then southward. It merges with the Ganges and then flows into the Bay of Bengal.

The River Ganges

The river Ganges begins at Gangotri, 3,140 meters above sea level, at a distance of 156 miles from the hill station of Mussoorie. The temple town here is a holy place for the Indians. Most Indians believe that a holy bath at Gangotri can rid them of the sins they have committed knowingly or unknowingly. This faith of the pilgrims has drawn them to Gangotri since time immemorial. Bhairon Ghati at the confluence of Jadh Ganga and Bhagirathi rivers is about five miles below Gangotri.

Earlier there was only a rope bridge with a wire railing which helped pilgrims cross over. Now new roads and bridges have enabled the pilgrims reach Gangotri easily.

Musing about this ancient rope bridge, Sandeep Silas says,

"This triumph of amateur engineering stretches across a chasm whose walls are perfectly perpendicular, and has first-level space enough at each end for the piers and abutments. Many of the hillmen themselves have to be led across by others with stronger hands and nerves. Pilgrims to Gangotri and others accustomed to dizzy heights generally crawl across on their hands and knees, the swaying and spring of the light wire ropes suspending the footway, making the passage a really difficult one to any one. Thank God, that today I can see this contraption as only a slice of history from the strong road bridge high above."[11]

Water of the Ganges:[12]

Many scientists have verified the Indian belief that the water of the river Ganga, rich in minerals is extremely pure and cures many diseases.

According to the British physician, Dr C.E. Nelson, "Ships leaving Calcutta for England take water from one of the mouths of the Ganga; and this Ganga water remains fresh all the way to England. On the other hand, ships leaving England for India find that they must replenish their water supply at Port Said, Suez or Aden on the Red Sea".[13]

Rivers in Central and Southern India

Starting from the Vindhya Mountains, Narmada and Tapti flow into the Arabian Sea. Luni River flows southward in to the Arabian Sea. These rivers irrigate land and sustain the population of the Deccan Plateau. On the eastern side there are a number of rivers sustaining the population of the Deccan Plateau and the southern peninsula. Several rivers such as Mahanadi, Godavari, Krishna, Tungbhadra, Kaveri and several of their

tributaries flow into the Bay of Bengal. These rivers south of the Vindhya Mountains sustain irrigation in the Deccan Plateau and the southern tip of India. Besides these rivers there are several small seas in Andhra Pradesh.

The Importance of Rivers

It is important to understand that rivers and river valleys alone were not responsible for the emergence of societies, culture and civilizations. Three other key factors were fertility of the land (alluvial soil), tropical climate, and the geographical location with respect to the poles. This explains why Rome and Greece have early civilizations but northern Europe in spite of the mighty rivers did not support advanced civilizations. It also explains the localized nature of the early Egyptian civilization. Sahara desert contained the size of the Nile River. The most likely scenario for civilizations to prosper is tropical land with rivers crisscrossing the land.

When the survival in a hostile environment is at stake people have neither peace nor time or space for creativity. Fortunately, India provided an environment friendly to the growth of civilizations. For the longest stretch of time India has been the seat of flourishing kingdoms, maritime trade and prosperous people.

Dams, Reservoirs and Conservation of Water

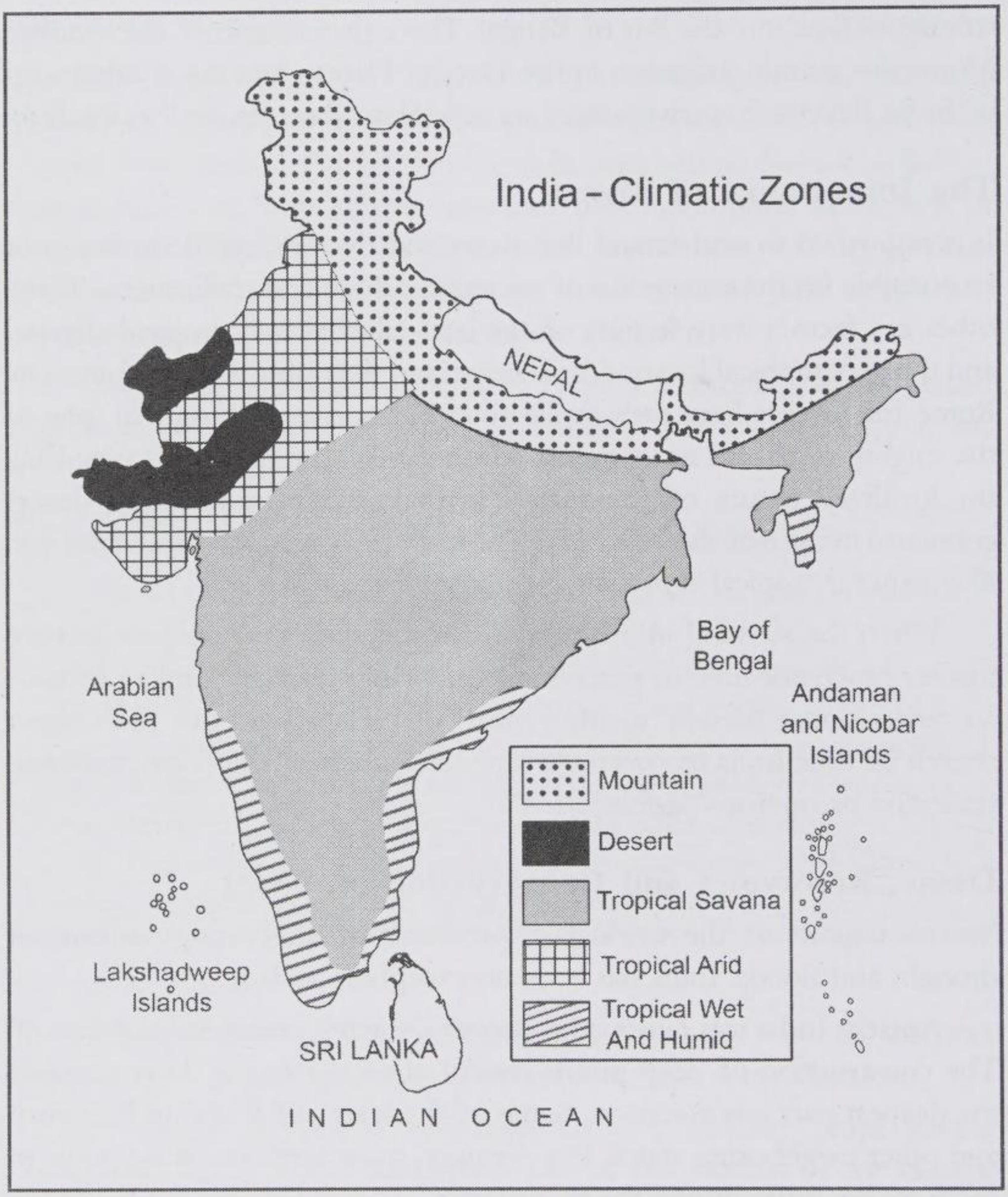
Several regions of the world face problems of alternating patterns of drought and floods. India has been no exception to this.

Ancient India was famous for proper drainage, reservoirs and dams.[14] The construction of deep ponds *(baulis)* often narrowing down towards the deepest part was common. Some of these are still found in Rajasthan and other neighboring states. For drainage, there were low lying pools to catch excess water during the monsoons.

These pools have disappeared. Because of the increase in population, local authorities have sold these lands for building residential colonies. The rate at which Indian population is growing, water resources have become scarce and the construction of a national river grid system and such ponds has acquired a new urgency.

Climate and the Pattern of Rainfall

India has six seasons – mild winter (s*hishira*), spring (*vasanta*), summer (*greeshma*), monsoon (varsha), autumn (*sharad*) and winter (*hemanta*). Because of the heat and humidity most farmers are able to reap four to six harvests a year. The Tropic of Cancer passes through the northern part of the



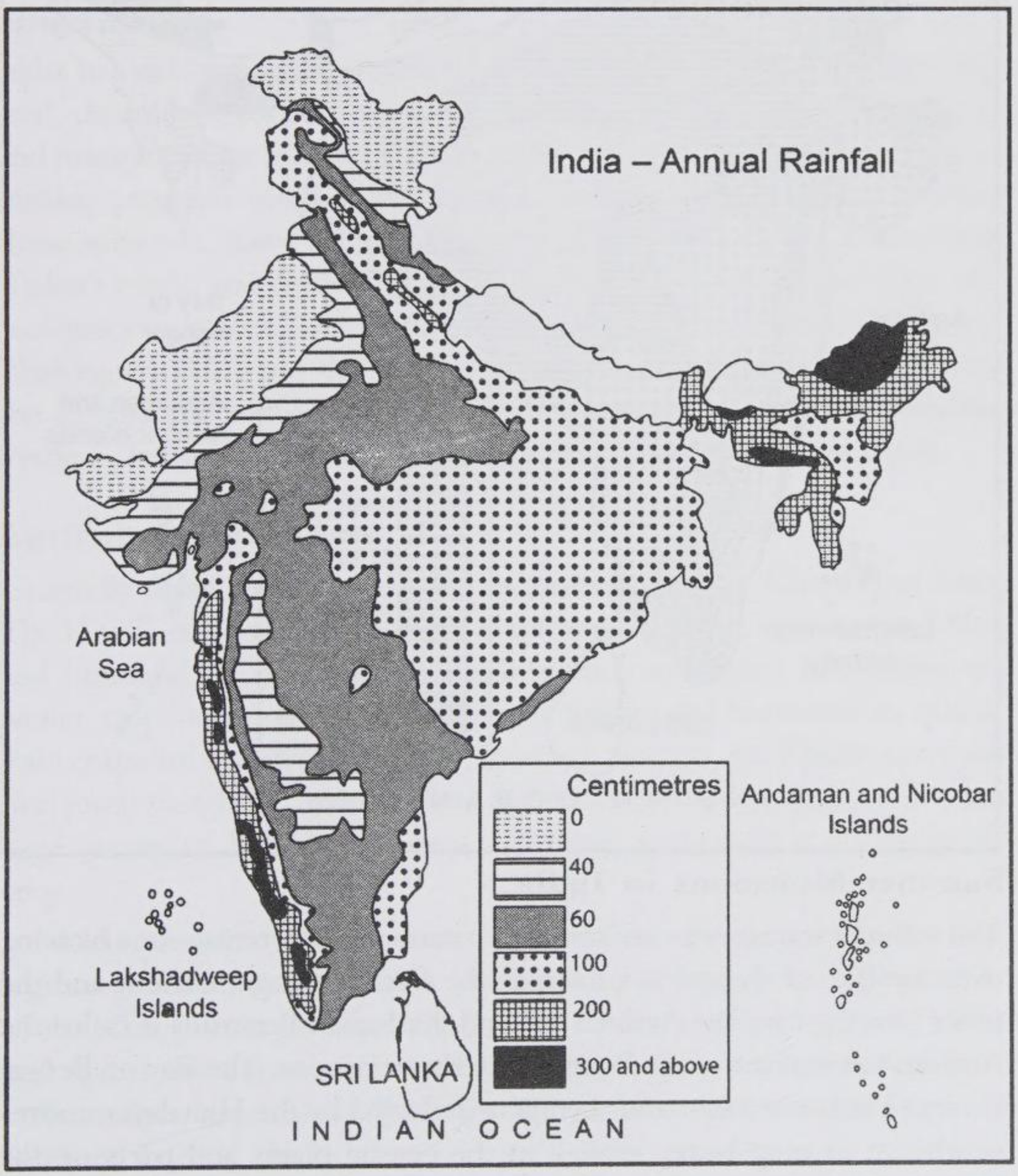
subcontinent. As a result, the Southern half of the continent has a tropical climate.

Summers in India can be divided in two periods—the first half of the summer season is hot and dry. It is before the arrival of the monsoons. The second half of the summer season is hot and humid, which is known as monsoon season. The first half is from April to June and the second half is from June to September. During the dry summer, temperature climbs to as high as 115 degrees Fahrenheit. The climate on the plateaus and hills is cooler due to their elevation above the sea level.

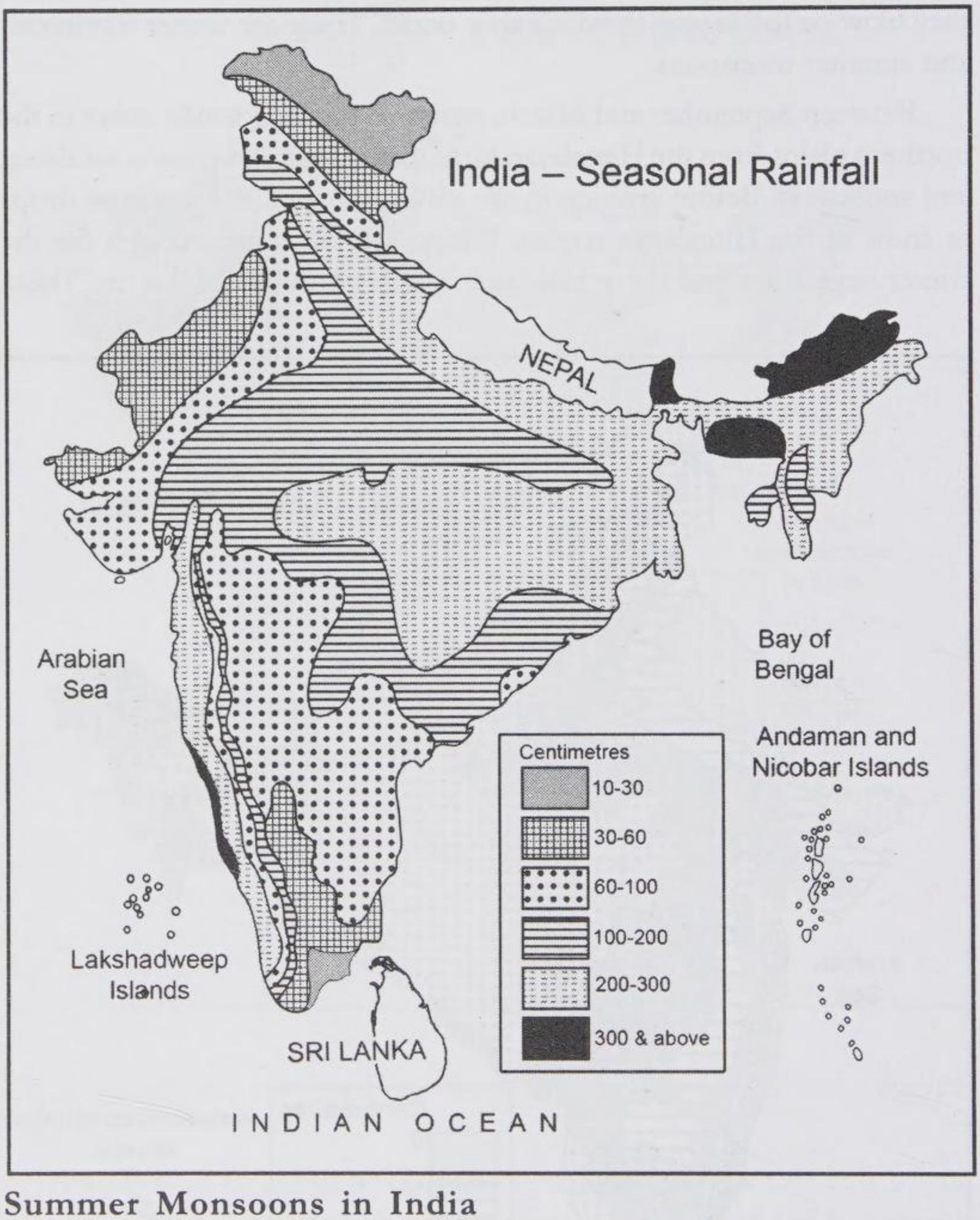
Monsoons and Rainfall

India gets most of its rainfall from the moisture carrying trade winds called Monsoons.[15] Monsoon winds are seasonal, named for the direction in which they blow or the season in which they occur. There are winter monsoons and summer monsoons.

Between September and March, moisture carrying winds arrive in the northern plains from the Himalayan Mountains. Their direction is southeast and southwest. Before arriving in the plains, most of the moisture drops as snow in the Himalayan terrain. Winter rainfall is just enough for the winter vegetables and the grains such as wheat, millets and corn. These



winds gather more moisture while crossing the Bay of Bengal and the Arabian Sea. As a result, these trade winds bring substantial rain in the coastal areas of the southern peninsula.



Summer Monsoons in India

The summer monsoons consists of two surface air currents—one blowing over the Bay of Bengal is known as the Bay of Bengal current and the other blowing over the Arabian Sea and the Indian Peninsula is called the Arabian Sea current or the South Westerly monsoons. The Bay of Bengal current heads northeast and then gets deflected by the Himalayas, moves southwest causing heavy rainfall in the central plains and parts of the Deccan Plateau.

Thus, by the end of May and early June, the summer monsoon arise from the Arabian Sea, Bay of Bengal and the Indian Ocean. Their direction is north and northeast. Turning southwest, around the beginning of July, monsoons arrive in the Central and the Gangetic plains. Coastal areas of the south also get substantial rains, often causing floods. Monsoon rainy season with the number of rainy months and the amount of rainfall is of great importance to various regions of India determining their agricultural abundance. As this is the main rainy season, as much as four-fifths of India's rainfall occurs during this season.

Natural Resources

Minerals

India has rich deposits of mineral wealth. Iron, bauxite, mica, tungsten, coal, chromium, rock salt, gypsum, zinc, tin, nickel, gold, silver, copper and manganese are some of the minerals found in India. These are used in making products often in combination as alloys such as brass. Besides these minerals, there are rich deposits of marble, granite, *multani mitti* (Fuller's earth) and fieldstone. India also has rich mines of precious and semiprecious stones. The Hope diamond (now in Smithsonian Museum, Washington D.C.) and the Kohinoor diamond (studded in the crown of the English monarch) come from the Golconda gold mines of Andhra Pradesh, India. These are the largest pieces of diamond in the world.

Agricultural Products

Generally there are two main crop seasons in India – Kharif and Rabi. The Kharif crops require long hot summers. These are sown around May and June and are harvested by the beginning of winter. Rabi crops are winter crops sown in the beginning of winter and harvested in spring. Rabi crops are wheat, gram, barley, mustard, barseem etc. Kharif crops are rice, jowar (sorghum), bajra, millets, sugar cane, cotton, jute, groundnuts, a large variety of lentils, and beans. Of these, sugar cane is a year round crop.

India produces a large variety of vegetables all year round. The hilly regions produce, maize, millets and tapioca. Several cash crops such as cotton, flex, jute, sugar cane, rice, coffee, tobacco, indigo, tea, nuts, lentils and spices are exported from India. Indian spices continued to lure mercantilists/imperialists from the 15th century onwards. In a speech delivered in 2004, the President of India drew attention to the following

achievements in the field of food production, "We are the first in milk production. We are the second largest producer of wheat. We are the second largest producer of rice".[16]

Silks

Silk plants originated in India. It may be noted that many plants, trees and other vegetation are native to certain climatic zones, soil conditions and the amount of rainfall. Often the winds carry pollen of the vegetation to the neighboring regions. Silk is extracted from the cocoons of the worm which lives on Mulberry trees. These trees are native to India. They grow in various regions of India: in the southern region, Jammu and Kashmir, areas of West Bengal and Uttar Pradesh. The pollen did not get carried by wind to the regions beyond the Himalayas because of the height of the mountain range and the subzero temperatures. Later, when trade developed between neighboring countries, varieties of seeds were taken to China and other places. Indian silk has a large variety of fabrics. Most of these were hand spun and hand woven. These days machines are used for the threading and weaving processes. India is still perhaps the only producer of raw silk (hand woven, hand spun). Kanchipuram, Banaras, Mysore, Odisha, Murshidabad silk are some of the famous varieties of silk.

However areas under mulberry trees are decreasing in size. Cotton has been one of the largest exports of India in the ancient times. Fine muslins were imported and used by ancient Romans and Greeks. Today, the blue jeans are made from a tough variety of cotton grown in Dunagiri. The term dungaree for the blue jeans is because of the place where this variety of cotton is produced. Jute (from jute plant) and linen (produced from flax plant) are other fabric materials for which India has been famous for the past several millennia.

Nuts and Spices

All varieties of nuts are grown in India—pignolia nuts, coconuts, walnuts, cashews, pistachios, almonds, sesame seeds, safflower seeds and peanuts—to name a few.

All varieties of spices are grown in India—especially in the southern regions of Indian coastal plains. Some of the most popularly used spices are—cardamom, cinnamon, green cardamom, fennel seed, cumin, oregano, coriander, cloves, a large variety of peppers, chilies, turmeric, ginger and nutmegs to name a few.

Indians knew how to extract oils from many of these spices and nuts. These edible oils were used in various ways. Vegetable oil along with clarified butter is used for cooking and frying, and for massaging the skin. These oils are used in medicines as well. Oil has been used since ancient times for lighting lamps. The *Ramayana* mentions that oil mixed with herbs was used to preserve the body before cremation. Vegetable oils are also used as preservatives for pickling.

Kashmir is famous for saffron and several varieties of nuts. The Arab traders took saffron to Spain.

Orchards and Fruits

Any type of fruit that students may find in an international fruit store in a big city such as New York is grown and eaten in India. Fruit orchards abound all over the country. Large varieties of apples, apricots and plums, are grown in the foothills of mountains. Guavas, oranges, tangerines, lichees, loquats, lemons, melons, watermelons, mangoes, bananas, grapes, pineapples, grapefruit, and several varieties of berries are among the large varieties of fruits available in India. It is said that North India alone has about 1,200 varieties of mangoes trees.

Recently agricultural departments of various states have encouraged the fruit growers to grow hybrid high yielding fruit trees. A cross between orange and tangerine known as kinoo has become very popular and when in season kinoos are available cheap.

Green Revolution and Agricultural Self-sufficiency of India in the Past 50 Years

India has been in the grip of famines and food shortages. Though it was blamed on the uncertainty of monsoons; lack of mechanical tools and small size of farms, and several other man made factors were also responsible for the problem.

These problems emanated from the economic and political policies of the rulers in the last nine centuries. Though the problem of famines and shortages are a part of the volume on Recent History of India, it is essential to mention here the four pronged policy of the British government responsible for the repeated famines in the 18th and the 19th century:

a. Introduction of the *Zamindari*[17] system,

b. The replacement of food crops by cash crops,

c. Indebtedness of the tiller of the soil resulting in the use of outmoded methods of farming,

d. Neglect of the government and lack of aid to farmers.

India has been agriculturally self-sufficient since 1980. Several canals, reservoirs and tube wells constructed in the past five decades have enabled farmers to have better yields and more crops per year. The use of chemical fertilizers, tractors and better seeds have all contributed to higher yield per acre. The research done by various agricultural universities of India has brought out high yielding varieties of grains and fruits.

Forests in India

The type of a forest depends on factors like temperature, rainfall and the soil of a place. There are 14 types of forests in India:

- Tropical wet evergreen and semi evergreen forests,
- Subtropical and temperate wet hill forests,
- Wet temperate forests,
- Tropical deciduous forests—dry deciduous and wet deciduous
- Dry savanna and semi desert scrub also called steppe vegetation,
- The Desert vegetation,
- Mangrove forests,
- Subtropical wet forests,
- Alpine
- Subtropical Pine
- Moist temperate and wet temperate forests

Such a large variety of forests provides Indians with all types of wood which can be used for building houses, railway sleepers, beams, doors, furniture, paper, carriages and wagons and bamboo roofing. Some of the famous varieties of trees are: pines, palms, tarh, conifers, shisham, deodar, babul, chirh, beedi, rubber, sal, bhabar grass (for making paper), *pipal*, *ber*, *neem*, *mahua*, sandal, birch, bamboo, cane and rosewood.[18]

Indian forests yield a variety of hardy, disease resistant wood. Mahogany and teakwood are used for making doors and furniture. Teakwood is especially resistant to insects and prevents rusting of the nails.

Shellac, guar gum and resin are by-products of sap from the trees. Resin is used to make turpentine oil. *Taarhi*—an intoxicating drink is made by fermenting the juice—a sap from Tarh trees.

Deforestation, Biotic Changes, Inaccessible Forests

More and more land is being cleared of forests for agricultural purposes and for housing India's growing population. Because of the laxity of law enforcement in the forest departments, forests are rapidly getting depleted. Commercial timber is in such a short supply that very large quantities are imported for meeting the demands of the railway department. Deforestation has also caused extensive flooding and soil erosion in many parts of the country.

Burning of vegetation, constant grazing and reckless hewing of trees to use the wood as fuel have also caused deforestation and removed the vegetation cover of the ground. These biotic changes can be stopped by proper law enforcement.

Deodar which is extensively used for making railway carriages, wagons, beams and doors of the houses come from the hilly states such as Himachal Pradesh, Jammu and Kashmir and the Tarai region of Uttar Pradesh. The Himalayan region is rugged and often inaccessible. Extraction and transportation of commercial timber from these places is difficult and expensive.

Fauna and Flora of India

India is home to probably one of the largest varieties of living species. It is estimated that there are 65,000, species of fauna, 350 types of mammals (7.6% of the world total), 408 species of reptiles (6.2% of the world total) 197 types of amphibians (4.4% of the world total), 1,244 types of birds (12.6% of the world's total) 2,546 types of fish, 15,000 varieties of flowers and thousands of herbs. Out of the thousands of herbs, over 2,000 varieties are used for medicinal purposes. Hundreds of these herbs are in common use.

The national bird of India is peacock; and the national animal is tiger. Several species of wild animals such as tigers, lions, wild elephants have become endangered species. Many state governments are creating special wildlife sanctuaries to preserve endangered species. Three hundred years ago, Bengal was famous for white tigers. A large number of tigers lived in Kumaon Hills of Uttar Pradesh. During the British rule, tiger hunting was a pastime of the ruling class. If greedy poachers are not handled by the legal system, elephants, tigers and many other endangered species will soon become extinct.

Summary

Geography and abundant natural resources helped ancient Indian kingdoms to flourish and support their populations. India is rich in mineral resources. It enjoys agricultural abundance and a vast variety of vegetation, orchards, forests and a long coast line. In the ancient times, this enabled Indian kingdoms to have flourishing trade with foreign countries. Almost all of the river basins supported prosperous kingdoms.

It is important to understand that rivers and river valleys alone were not responsible for the emergence of societies, culture and civilizations. Three other key factors were fertility of the land (alluvial soil), tropical climate, and the geographical location with respect to the poles. This explains why Rome and Greece have early civilizations but northern Europe in spite of the mighty rivers did not support advanced civilizations. It also explains the localized nature of the early Egyptian civilization. The Sahara desert contained the size of the Nile River. The most likely scenario for civilizations to prosper is tropical land with perennial rivers crisscrossing everywhere. When the survival in a hostile environment is at stake people have neither peace nor time and space for creativity.[19] Fortunately, India provided an environment friendly to the growth of early civilizations.

The subsequent chapters will refer to the role of geography and how for the longest stretch of time, India has been the seat of flourishing kingdoms with maritime trade and prosperous people.

Concepts to Understand

1. Agriculture thrives in tropical climates.
2. India has a network of rivers affording year long irrigation facilities.
3. Seven river systems in the northwest, seven river systems in the central plains, three rivers in the west and seven rivers in the south have been responsible for the affluence of the subcontinent.
4. Spices, textiles, woodwork, ivory, gems and steel have been some of the major products of export.
5. India has a large variety of forests.
6. Indian agriculture is diverse. Almost anything that grows anywhere else grows in India.
7. Cardamom Hills in the Southern India are one of the largest producers and exporters of spices.
8. India has ample mineral resources. However, in relation to demand, India has a serious shortage of petroleum and crude oil.

9. Monsoons are seasonal trade winds which produce rainfall from June to September.
10. From the ancient times Indians knew how to build canals, reservoirs, dams and deep wells which provided irrigation facilities to the farmers.

Questions

From around 320 B.C. onward, Indian riches and luxury goods have tempted hordes of invaders and religious zealots to plunder and establish empires in India. Describe the mineral wealth, the agricultural and industrial products that attracted foreign traders and marauders.

1. List the crops that colder climates of Europe could not grow and wanted.
2. List the products which were essential for the nomadic communities of Central Asian deserts.
3. What were the products which India sent to Rome, Central Asia and Greece, because these products were not native to these countries?
4. Besides trade, what else happened when traders met to exchange goods?
5. Compare the life in the desert areas with the life in the tropical areas. Analyze factors that promote growth of organized societies in the Tropics.
6. Students can list items made of wood in their homes and describe the type of wood used. Do American homes use the same type of wood as used in India?
7. Students may do a project on the endangered species and suggest ways to preserve rare wildlife.
8. Compare the scene of a modern day flea market with the scene of a trade fair of the ancient times.
9. Readers may refer to the speech of the former Indian President Dr. A.P.J. Abdul Kalam and discuss India's resources and achievements.[20]
10. Why is it important to refer to a country by its correct name?
11. "There is no person in any of the six countries today who can be considered as a South Asian". In the light of this statement, the class can do a group project. Students may think of alternative names for the history of Canada as history of North America, history of Mexico as history of Central America etc. They may then discuss how assigning wrong categories makes the study of a nation meaningless or pointlessly confusing.
12. What is *Hindutva*?

13. Is stressing one's religious identity as a follower of Hindu *Dharma* communal or against other religions? Use the example of your temple, church or mosque practices—whichever is applicable.
14. Students may be encouraged to do group projects around the themes:
    a. Why were waterways important for early civilizations?
    b. Why is the water of some rivers considered holy?
    c. How do modern environmentalists view the problem of water pollution?
15. Study the two maps—one around three thousand B.C.[21], given at the beginning of the book and another fairly recent one. Compare the two maps. Which rivers and tributaries changed course and caused environmental changes?
16. The geologists feel that by dredging the river bed, Sarasvati can be a river again. If that happens, how would that affect the people and regions of India? Which regions would benefit the most? The class can be divided into teams and each team can take up a project to research the valleys and climatic changes and suggest ways to protect the environment. Besides civilizations what else is affected by profound natural changes?
17. There is a myth that Indian agriculture is completely dependent on the vagaries of the monsoons. With the help of the map of rivers, show the alternative sources of irrigation that support agriculture and have helped sustain civilizations?
18. The current level of density of population and the size of population requires intensive cultivation. Draw a plan showing various options for a sustainable level of agricultural production. The class can be divided in teams and each team can present their own recommendations in the form of a project. Population explosion is a global phenomenon; for comparative study, the project may include other countries facing similar problems.

Enrichment Activity

1. It is possible to take seeds from tropical areas and grow the crop in hotter parts of the USA and Europe. Check the section of international produce in your food supermarket and list at least five items which the USA has just started growing in the last three decades.
2. From the two maps on pages 45-46, a pattern of winds and rainy seasons emerge. Which of the regions of India receive heavy rainfall

and which areas receive the least amount (less than 30 inches) of annual rainfall?

3. It is suggested that students check the map on page 41 and list the rivers starting with Mahanadi in the north emptying in the Bay of Bengal and Kaveri in the south also emptying in the Bay of Bengal. River Kaveri with its many tributaries is as mighty and picturesque as Ganga in the north.

Critical Thinking Activity

1. Why did Europe need spices in ancient times? Discuss the role of Europe's dependence on spices in the development of international trade.

Endnotes

[1] More about the name in the section 2, chapter 8.

[2] I added Afghanistan because for the most part of ancient and medieval history, Gandhara and many other western kingdoms were part of India.

[3] *Sources of Indian Tradition* edited by Embree, Columbia University Press, (Emphasis is mine).

[4] *Hindutva* means the essence of Hindu faith, philosophy and traditions. It can be translated as Hinduness.

[5] Hindus know their faith tradition as Hindu *Dharma*. Hinduism is the word given by western writers. This will be explained in section 2, chapter 11.

[6] Dr. Kalyanaraman research work, review bibliography.

[7] Afghanistan was separated from India prior to India's independence.

[8] Government reports, Census Data on Religion released in 2004

[9] See the map on page 41 and identify the river basins and the area each basin feeds. Students may identify the river basins in Pakistan.

[10] Valleys between seven rivers are called Sapta Saindhava.

[11] For a fascinating account of the river and the pilgrimage to the source, students may read the book *Mystical River* by Sandeep Silas

[12] http://www.sivananda.dls.org.za/Ganga.htm

[13] Posted on 9.3.05-link:indiancivilization@yahoogroup.com

[14] Check the chapter on Indus-Sarasvati Civilization for details

[15] A surface wind that blows in a particular direction in one season and then reverses in the other is called 'Monsoon'.

[16] A.P.J. Abdul Kalam – President of India, 2004

[17] Check the glossary for explanations

[18] Check the glossary for the botanical/English names of these trees.

[19] Recommended reading – *Surviving the Extremes*, a fascinating scientific study on the subject of human survival

[20] Review section 1, chapter 3

[21] Given in the next chapter

Chapter 6

Beginnings of Indian Civilization and The European Time Frame

A Fascinating Story of Prehistoric Indian Civilization

In this chapter and the chapters that follow, the continuous history of the people of India through triumphs and tragedies, upheavals and achievements as well as the emergence of an ever refreshing pattern of culture, architecture, art forms and traditions will be traced. The time span from 7000 B.C. to 1000 A.D. will be covered.

In order to trace the earliest beginning of Ancient Indian Civilization, it is necessary to use the recent finds made by the archeologists, the geologists, NASA scientists, the marine archeologists and the scientific evidence which has surfaced from the large scale research done by the geneticists, astronomers, metallurgists, physicists, ecologists and computer scientists. It is also critical to date the relics and other artifacts excavated by the archeologists in the Indus-Sarasvati Civilization with the help of the new technologies such as, C2RMF.

In this book an honest attempt is made to place credence on literary sources over speculation and scientific evidence over theories. It was Einstein who once said, "A theory must not contradict empirical evidence". Therefore if the theory contradicts empirical evidence, it should be thrown out. In this chapter, many of those theories will be challenged because of their inaccurate content and invalid time frame. Invalid here means that the time frame is contradictory and inconsistent with hard facts obtained from various other sciences.

This chapter will discuss the following key points: The origin of civilization based on some recent finds in the Indus-Sarasvati river valley from the Himalayan foot ranges to the Rann of Kutch and Gujarat peninsula as well as in southern India. The chapter will also discuss the views of scientists from several other fields of study such as ecology, geology, and genetics.

Important facts are emerging from studies conducted by the scientists in various disciplines such as, astronomy, metallurgy, geology, ecology, genetics, marine technology, physics and archeology. The ecology and geographic location of the continents have played a major role in arranging and rearranging the contours of the land masses, affecting the early green house effect.[1]

The new technological developments made the task of historians easy. Some of these developments are: the software which can create the maps of the sky as mentioned in the Vedic and post-Vedic literature, satellite imaging of the dried river beds and the method of carbon dating of artifacts of historical importance.

"A recent paper co-authored by Peter Underhill in our Genetics Department analyzed genetic evidence and concluded that there is no such thing as Aryan migration into India. This is consistent with evidence from other fields such as carbon dating, fossil studies, archeology, geophysics, linguistics, metallurgy and satellite imaging".[2]

Origin of Civilization and the Vedic People

It is generally agreed that people from all over the world (except from Africa) belong to the same genetic group. The outward appearances are a response to the environment and the climate of the region.

However several bands of migration took place even before the ice age. People migrating from the *east* not *west* of India were assimilated in the indigenous population.

The scientists from various fields of study have given us an approximate idea about the time frame of important developments in the past 17,000 years. The following timeline will help students:

The Timeline of Events[3]

9000 B.C.
- Settled communities
- Farming in northern India
- Pottery making

7000 B.C.
- Pre-dynastic era
- Svayambhu Manu
- Copper age begins

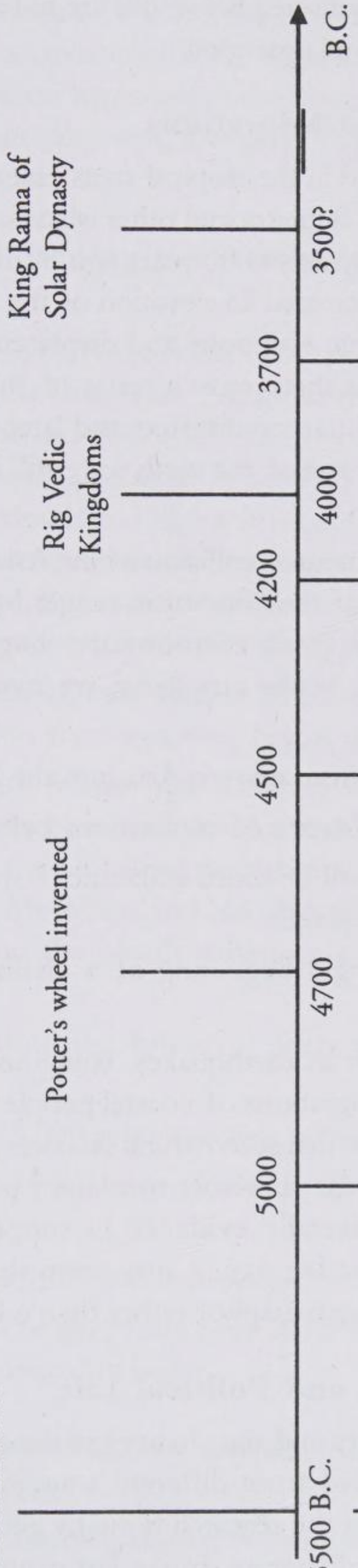
6100 B.C.
- Mehrgarh and other cities off the coast of Surat

6000 B.C.
- Pre-S/S civilization

5900 B.C.
- Uttar Pradesh and Bihar prehistory

5700 B.C. 0 B.C.
- Harappa and Mohenjodaro begins
- Scattered kingdoms

The Timeline of Events[4]



Geologists have unearthed many facts about phases of life before the ice age. These facts are mentioned below but are not added to the timeline because a clear picture is still emerging.

Natural Disasters and Migrations

Earliest civilizations existed in the tropical areas east of India, places such as Burma, Indonesia, Java, Sumatra and other islands. Geological evidence points to eruptions as early as 74,000 years ago in the straits of Java and Sumatra. These eruptions created an elevation of the Indian plate over the Asian plate causing volcanic eruptions and displacement of people. The most likely scenario is that there were a series of migrations from these places to India because of natural disasters and later maritime trade. This was the time when many parts of the earth were still in the grip of the Ice Age.

The continuous upliftment or collision of the Asian plate by the Indian plate is raising the height of the Himalayan ranges by 1 cm. every year. If more geological evidence (with corroborative linguistic evidence and paleontological evidence) keeps emerging, we may have to make the following conclusions:

1. Westward migrations from eastern Asia into the Indian subcontinent.
2. Possibilities of the existence of civilizations before the last Ice Age.
3. History of mankind will be more authentic if studied along with the natural history of the planet.
4. An arbitrarily fixed rigid beginning of a civilization at X point is meaningless.

Natural disasters such as earthquakes, tsunamis and rise in the sea level could have caused migrations of coastal people engaged in maritime activities. Geologists believe that such natural disasters destroyed population and caused migration of the survivors to eastern parts of India. In the absence of sufficient scientific evidence in support of such remote civilizations before the last Ice Age, it may seem that the Vedic view of legendary ages is more of a metaphor rather than a fact.

Beginnings of Social and Political Life

Our ideas about the society and the changes in the patterns of life styles are formed by facts derived from different sources. Most important of these sources are based on the research done by geologists, archeologists and the scholars of Vedic literature. In the last century, a vast amount of evidence has come from geological and archeological discoveries and literary

sources. A close examination of literary sources reveals the geography of kingdoms, the genealogies of kings, their beliefs, practices and ceremonies and a great deal of astronomical data. It is essential to compile these facts about our sociopolitical beginnings after correlating all such information. Authentic historiography would require that we do that without any preconceived notions.

Geological and Ecological Pointers to the Formation of Societies

A long time ago the Indian subcontinent was pushed into Asia. This resulted in the formation of the Himalayas. The moisture in the trade winds dropped massive snow on the mountains and plenty of rainfall in the plains. This snow caused numerous perennial streams to flow from the Himalayas.[5] Formation of high clouds and higher level of solar radiation in the tropics of the Indian subcontinent caused abundant vegetation. On the Indian side of the Himalayas, there are streams, lakes and plenty of rainfall. About 40 per cent of the river waters of the world flow from the Himalayas.

Two million years ago the earliest hominids lived in Africa and India and about one million years ago, they began using tools.

Recent finds of Stone Age tools in Bolpur[6] (West Bengal) and Jharkhand[7] in India place early hunters any time between 1,00,000 to 10,000 years ago. This was the Holocene period of the Ice Age which witnessed Eolithic, Paleolithic, Mesolithic and Neolithic phases of human civilization. Most of Europe and the North American continent were still covered with ice.

Students may note the following facts which may be considered historical markers:

a. Approximately 15,000 years ago, the ice started retreating.
b. Tropical areas were the least affected by the onset or retreat of the Ice Age.
c. Rising sea level submerged coastal settlements.[8]
d. At some point, the river beds near the deltas of Narmada and Tapti rivers were submerged in water.

Agrarian Communities in Indus, Sarasvati and Ganga Valleys – 15000 B.C.

Around 15,000 B.C., farming started in some regions. The Ganga Plain is one of the largest alluvial plains of the world. It is important for us to include the recent conclusions made by researchers in various fields, such

as, paleobotany, geology and ecology. Historians had not paid much attention to the Gangetic plains because of the assumption that the Ganga plain was covered by dense forests which prevented people from settling there. Settlements only began when they developed tools to clear the forests. It was also assumed that clearing of the forests began some 3,500 years ago.

Eminent researchers from the USA, India and Germany have been jointly involved in a study to provide paleoclimatic information from the heart of the Indian subcontinent, where rainfall is essentially controlled by the monsoon variability which in turn affects human habitation and cultivation. The following report about a joint study done by the scientists from various countries appeared in the leading newspapers. The study suggests "the Ganga plain has been a grassland with human activity for 15,000 years, and was not an uninhabited zone of dense forests where humans didn't venture until 3,500 years ago, as generally believed".[9]

Researchers performed pollen and chemical analysis by digging up mud from a six feet hole in the Sanai Tal (Sanai Lake). The lake bed of Sanai Tal is between Rae Bareli and Lalganj in eastern Uttar Pradesh. It is now dry.

Chauhan, one of the researchers involved says, "Our findings suggest that people lived in the Sanai lake region 15,000 years ago". "Cultural pollen is indirect evidence for human presence and we found it throughout the 15,000-year history of Sanai Tal".

Ancient pollen contains information about the vegetation and chemical elements buried in the lake sediments indicating changes in the monsoons.

After examining the cultural pollen, the scientists found that the Gangetic plain was savannah grassland with a few pockets of forests. Thus cultural pollen is an indirect evidence of human presence in this region.

The Sanai Lake was formed about 12,500 years ago, during a period when the monsoon gained in strength. But the region experienced a 1,000 year spell of dry weather during the period from 11,500 years ago to 10,500 years ago. This affected the levels of cultural pollen and the extent of human activity in the region. According to the finds made by the GSI (Geological Society of India) and the ASI (Archaeological Survey of India) cultivation was done as early as in 9000 B.C.

Earlier excavations at some 9,000-year-old sites in Pratapgarh district, about 60 miles east of Sanai Tal, have shown evidence of farming. From then onwards and especially around 5,000 years ago, the Gangetic plain is believed to have witnessed a large scale movement of people from the Sarasvati Basin. This happened because of the gradual desiccation of the Sarasvati River.

More recently the evidence for rice cultivation in the seventh millennium B.C. has also been recorded from Lahura-deva in the Ganga plain. A study on the lake cores at Lahura-deva and Sanai Tal in the same region indicates that it might have had an even earlier genesis, perhaps as early as in the concluding Pleistocene phase of the earliest Holocene.[10] This evidence lead us to the conclusion that, before 7000 B.C. rice was cultivated in Eastern India (from here its use spread into China).

In a seminar on Magan and Indus Civilization, the Director of ASI, B.R. Mani [ASI Superintending Archeologist (2003) Joint Director General, Archaeological Survey of India (2007)] said, "The recent excavations at archeological sites of Virana in Haryana and Lahura-Deva in Uttar Pradesh have revealed that developed cultures dating back to the sixth millennia B.C. and seventh millennia B.C. existed in the country." He also said, "This would mean that there were pockets where urbanization would have started before the well-developed urban civilization of the Harappans[11] ... Till the 1940s, there was no scientific methodology for dating and hence evidence obtained from excavations at some sites was either not properly studied or was ignored."

Pottery Age

Recent finds of pottery in Chopanimando, located at the Belan River, near the confluence of Ganga and Yamuna have led scientists to predate the age of pottery. Chopanimando's pottery with dull, red and brown grey wares is earlier than the pottery of Mehrgarh.[12] Fragments of this pottery were dated 8080 B.C. with impressions of wild rice grains. This means that Chopanimando's pottery is more than 2500 years older than Mehrgarh's pottery which starts around 5500 B.C. According to Dorian Fuller, "This comes to support other early pottery dates at UP, like Lahura-deva of 6200 B.C., and sites like Baghai Khor, Lekhahi III-IV, Ghagharia and Morahana Pahar". With evidence from Lahura-deva and Chopanimando, Fuller believes that ceramics have a history that stretches back by thousands of years.[13] Such discoveries change our chronology and pave the way for tracing the evolution of civilization in the Gangetic and the Indus-Sarasvati valleys.[14]

Early Evidence of Horses in the Ganga and Sapta Saindhava Regions

Horses are described in the Vedas. *Rig Veda* Verse, 1.162.18 describes the horse as having 34 ribs whereas the Central Asian horse has 36 ribs (18 pairs). Fossil remains of the Shiwalik horse provides us with the

archeological proof of the fact, "The Vedic horse is a native Indian breed and not the Central Asian horse".[15] S.R. Rao, Director of ASI, (1954-1955, 1962-63) points out to the evidence relating to, "the occurrence of horse bones and rice at Lothal, Kalibangan, Surkotada and Ropar in India and Mohenjodaro in Pakistan".

According to N.S. Rajaram, "Horse remains—both domestic and the wild variety—have been found at places like Koldihwa and Mahagara in the interior of India dating to before 6500 B.C".[16]

A.K. Sharma's well-known identification of horse remains (shown) at Surkotada (in Kuchch) was endorsed by the late Hungarian archeologist, Sandor Bokonyi, an internationally respected authority in the field.[17] In 1991, while examining the local wild ass of the region, Sandor Bokonyi "confirmed several of them to be remnants of the true horse".[18]

As early as 1924, Sir John Marshall, the then Director General of the Archaeological Survey of India recorded the presence of the smaller variety of horse at the site of the excavations at Mohenjodaro. It is surprising that this 80 year old record is missing from all the books on the subject of the homeland of Vedic Indians.

This evidence replaces all those conjectures that the horse arrived in India with the Aryans. It is clear that both the theory of the Aryans (as a race/linguist group) invasion/migration was a mere speculative theory and the mythical arrival of the horse was a part of the same story. More of this will be discussed in section 2, chapter 8.

Formation of Cities

As settlements became larger and grain cultivation became abundant, people began constructing better houses with drainage. They built houses for storage of food. The rise of cities was the next stage, necessitating the formation of political/military organizations.

Though the widely held belief has been that Harappa and Mohenjodaro were the first cities, Indian scientists have found the remains and ruins of cities older than these. From the currently available data, it seems that the first major Indian city, Mehrgarh (in present day Afghanistan) began as a small village in 7,000 B.C. and grew into a large city over the next 2,000 years. Off the coast of Surat, remains of another big city dating around 8,000 B.C. have been found.

"Indian scientists have made an archeological find dating back to 7,500 B.C. suggesting the world's oldest cities came up about 4,000 years earlier than is currently believed".[19]

The scientists found pieces of wood, remains of pots, fossil bones and what appeared like construction material just off the coast of Surat in western India, dismissing the current belief that Harappan Civilization (2,500 B.C.) was India's oldest civilization.[20]

Traces of chalcolithic cultures have been located at a number of sites, such as Sohagaura, Narahan and Lahura-deva. The use of fine pottery, mostly in the form of painted black and red ware along with other material characterizes the culture of these cities.[21]

The Age of Metallurgy

Copper Age

The discovery of several small sized copper objects found at the sites of Mehrgarh and Nausharo led to the study of the evolution of copper technology.

One of the most fascinating finds is the copper-based metal head dated to 4th millennium B.C. It is 11¾ inches high, 8¼ inches wide and 6½ inches deep. According to Hicks, "Extensive tests and mutually corroborative and interrelated physical, stylistic and historical evidence indicate it was cast in the 4th millennium B.C. The life sized, hollow, copper-based head in a human likeness may be the first hard evidence relating to the original Vedic Aryans in India as well as the oldest discovered worshipped image of any practicing religion."[22]

It is interesting to know that many of the ornaments – were made with copper based alloys hammered into shape. These artifacts belong to the period between 7th to 2nd millennium B.C. To arrive at this time frame, more than 120 metallic artifacts uncovered by the French Archeological Mission[23] have been studied. It was also found out that casting of metal to shape objects and the technique of alloying—mainly of copper and lead was used as early as 5th millennium B.C.

Copper/copper alloy objects have been found at hundreds of sites in the Indus-Sarasvati basins, from northern parts to modern Gujarat. Off

the coast of Gujarat, a brass part of a chariot has been found in submerged Dwarka which dates to 1,500 B.C.

It seems that the larger objects like weapons and household tools made of copper evolved later than the ornaments. Copper ornaments have also been found at some sites in Central Asia. Movements of the migratory tribes also known as gypsies provide us with clues to the connection between Mleccha and Mesopotamia. This connection extends to language affinities as well as similar advancement in metallurgy.[24]

As for gold, it has been generally believed that work on the metal began around 4,000 B.C. However, a recent discovery of gold jewelry in village Mandi, Muzaffarnagar district (now in Pakistan), believed to be from 5,000 B.C. has predated this by a thousand years. Silver work began around 4000 B.C. *Rajat,* the Sanskrit word for silver is mentioned in *Rig Veda.*

Iron Smelting and the Use of Metal/Alloys[25]

Evidence in Literature

Duryodhana, the crown prince of Hastinapur practiced his skills in the use of mace by hitting a dummy made of iron. After the Kurukshetra War, Dhritrashtra—the king of Hastinapur embraced a dummy made of iron, instead of Bhima. Bhima's mace was made of iron. There are clear descriptions of objects made of iron in the epic *Mahabharata.*

Archeological Evidence

Iron/metal finds dated 7,927 and 6,182 B.C. are found at Satanikota site (from Megalithic period). Satanikota is in Karnool District of Andhra Pradesh.

Iron finds from Gufkaral south of Kashmir are dated between 1,900 to 2,100 B.C.[26]

Several other areas where iron smelting was done are:

Atranjikhera in Uttar Pradesh, Netarhat in Bihar, Singhbhum–Raipur areas in Bihar where iron smelters of Asuras and Gond tribes live even today and also in Paiyampalli in Tamil Nadu.

It is interesting to see that all these sites are in the region where there are iron ore mines. Most of these sites are in and around Bihar—once the center of Magdhan Empire. It is clear that the development of steel or iron was not limited to one particular area. From Kashmir to South India, the technology was constantly transferred.

There is also sufficient evidence—both literary and archeological to conclude that iron technology (iron mining and smelting) within India was developed independent of the civilizations outside of the subcontinent. Evidence of iron smelting (dated to 1800 B.C.) has been found in the Ganga basin at Lahura-deva, Raja-nal-ka-tila and Malhar.[27]

Recently, ASI discovered urns decorated with motifs at an Iron Age burial site. The broken pieces of urns are an evidence of the Iron Age in the southern parts of India. When the dating of these urns is completed, the period in which they were created will be better ascertained. A broken pot with a leaf-like decoration running around its middle has a series of motifs showing a woman, paddy, a crane, a deer, a crocodile, and a lizard, and broken pieces of a burial urn have been found at Adichanallur, Tamil Nadu. These motifs resemble prehistoric cave paintings found in Erode and Dharmapuri districts of Tamil Nadu. The ASI has also discovered two urns, fully intact, with beautiful decorations on them. One has a garland-like impression running below its rim, created by a thumb impression. Another urn has two necklace like ornamentations, cutting each other. A third broken pot has a leaf-like design running all round its middle. T. Satyamurthy,[28] (2005-2006) called the motifs "a unique find because no such motifs have been so far found on burial potteries in Tamil Nadu".

Archaeological Survey of India has unearthed some 150 urns between February to July 2004. Of these, 50 are intact. Fifteen urns had human skeletons. Copper bangles were also found at the site. Many urns with skeletons had small grave pots inside, and some had paddy, copper bangles and husk. The motifs "show the artistic knowledge of the prehistoric people of Tamil Nadu", said G. Thirumoorthy. Outside, around the urns, ritual pots were kept. The artifacts found include a broken arrowhead, a rusted dagger, a rusted iron spearhead, and varieties of iron implements.

Several statues of clean-shaven faces of adults tell us another story. Not only was iron used for making tools and instruments, it was also used for making sharp edged metal razors. Trimmed beard and hair, clean-shaven faces indicate the use of sharp-edged metal razors, pointing to the advanced state of metallurgy in those early days.[29]

Besides the above evidence of the use of iron, Ayurvedic texts mention the use of metal powder. Even today iron as a mineral is used in Ayurvedic medicines. *Charaka Samhita* mentions the medicinal use of processed and purified iron.[30]

The word *Loha* stands for iron and *Rig Veda* mentions the word *Lohita* meaning blood. The Sanskrit word for iron is *Ayas* and it is mentioned in *Krishna Yajurveda*, *Taittiriya Aranyaka* and *Ras Tantra* of Ayurveda.

According to *Ras Tantra*, the *Loha* (iron) is classified into:

a. *Kanta Loha* – magnetic iron
b. *Tikshna Loha* – used for making weapons
c. *Munda Loha* – cast iron

Languages often reflect the experience and realities of their times. If the words relating to iron and its uses exist in ancient literature, then it implies that people were using this metal.

Earliest Evidence of Rock Paintings

Discovered by V.S. Wakankar, Bhimbetka rock paintings are as old as the oldest rock paintings known in the world that is around 25,000 years old. The rock paintings are in the vicinity of Raisen District.

Dentistry

A recent report in the journal, *Nature*, surprised many people. At a site of excavations, in Pakistan archeologists found several skulls with drilled holes in their teeth. It proves two things: a) prehistoric man's ingenuity and ability to tolerate and inflict such pain. b) dentistry is at least 4,000 years older than initially thought.

Researchers involved carbon dated at least nine skulls with 11 drill holes at one site and came to the conclusion that dental drilling dates back 9,000 years. One can also assume that poor dental health is not a new epidemic; some people in those days also had dental problems.[31]

Vedic People—Movement of People into India and out of India

In the last two centuries, most books begin with the theory that the Vedic people were invaders who came from Central Asian deserts. They claimed that several bands of such invaders came at different times. These theorists place the invasions in the time frame of 1700-1500-1200 B.C. These theorists usually have arbitrarily selected hypothesis which varies from one theorist to the other.[32]

More authentic information coming from the scientists and the geologists dismiss such conjectures. At the same time this new information forces us to take a new look at the emerging evidence.

Some fragments of ostrich eggs, perforated beads and finely shaped arrowheads have provided the first firm archeological evidence for the "out of Africa" origins of the world's human population. Scientists have found stark similarities in the ancient cultural artifacts made and used by the Stone Age people who migrated out of Africa".[33] The "out of Africa" hypothesis, developed by physical anthropologists and geneticists, has relied almost entirely on the analysis of human skeletal remains or on DNA studies. A comparative study of Stone Age artifacts found in Africa and India, carried out by Professor Paul Mellars, a Cambridge University archeologist, has revealed remarkable cultural and technological similarities that suggest a common origin.

The comparative study traced from 50,000 years ago, suggests a strong degree of cultural affinities between the African and the Asian people due to prehistoric migrations from one continent to the other. There is a strong evidence that there has been a movement of people from the *Sapta Saindhava* basins towards the north and the southeast.[34]

In the light of the above, let us examine the Indian literary sources which mention maritime trade and marine traveling to distant places. The other side of the earth is referred to as *Pataal* in the *Ramayana*, which also mentions that people living there functioned according to a different set of values. Possibly people could travel by land via the northern route by crossing the Strait of Bering. The presence of Sanskrit words such as, *Inca* (*Anka* – digit), *Astika* (believer – distortion Aztec) *Maya* (illusion), and *Dakshina* (right) in the Central American civilizations prove the maritime nature of early civilizations. Central America lies almost between the same latitudes as does India.

Pre-*Rig Vedic* civilization in Southern India (peninsular), especially in its coastal regions, was probably one of the earliest civilizations after the end of the Ice Age (8,000 B.C.). The movement of people in search of food and fish indicates patterns of migration.[35] Stephen Oppenheimer points out to a 'beachcombing' life-style among the first modern Africans as a motive for spreading out of Africa and around the Indian Ocean. Looking for fish, Africans migrated to Asia and Australia by sea route and dispersed in India and the coastal areas of India and other islands in the Indian Ocean.

Pre-Vedic Religion

Several artifacts and etchings on the seals reveal some interesting facts. From Indus River to Bengal and from the Himalayan foothills to the

Vindhya Mountains, archeologists have found seals with the impressions of fire altars and people in yogic postures. They also found the figurines of Mother Goddess. These artifacts show remarkable similarities in the religious practices of Vedic and pre-Vedic people. Some aspects of the worship of female aspects of the Divine (also known as *Shakti*) continue to be a part of Hinduism.

In a Paleolithic site in the Siddhi district of Madhya Pradesh (10,000 to 8,000 B.C.), a Mother Goddess shrine was found which contains symbols such as, squares, circles, *swastikas* and especially triangles. Thus, it proves that pre-Harappan cave dwellings contain elements and symbols which are still found in Hinduism.

During the period, 10,000 B.C. to 5,000 B.C. Indian beliefs, spirituality and ceremonies had varied elements of what later became Vedic traditions. These beliefs, ceremonies and practices were later found in the Vedic literature. It is estimated that Vedas were composed around 4,500 B.C.

Essential aspect of the pre-Vedic traditions was nature worship. David Frawley, a noted scholar on the subject considers this tradition as 'Hidden Vedas' and calls these practices pre-Vedic Shamanism. "The oldest religious and spiritual tradition that we know of for humanity is what is called Shamanism, which exists to some extent among all pre-urban peoples. The great pagan religions of antiquity, including those of pre-Christian Europe, can be seen as an outgrowth of Shamanism with its worship of nature, its ritualistic orientation and its pursuit of dreams and visions."

The most important elements of Indus-Sarasvati (also known as Sindhu-Sarasvati) people of the later period bear unmistakable resemblance to Vedic and pre-Vedic practices and beliefs. Some of the seals discovered in the excavations provide clinching evidence that the Vedas predate the Sapta Saindhva Civilization. "One seal bears a picture of two birds sitting on a peepal tree – one of them is seen eating its fruits and the other one is just witnessing it. This exactly corresponds to the famous *Rig Vedic* verse (1-164-20): 'Two birds with golden plumage sit on the branch of a peepal tree as close friends – one (*Jeevatma*) eats the fruits, and the other (*Parmatama*) just sits and witnesses'. Another seal bears a picture of a child tied to a mortar between two trees referring to the punishment meted out by Yashodha to Lord Krishna."[36]

Spirituality and nature worship were essential elements of pre-Vedic religions.

> "The development of civilization by exploiting the material world through science and technology is an outward development of culture. The development of spiritual knowledge is an inward development. The two can go together or proceed separately. An ancient person could become spiritual more easily than the modern person could, precisely because his mind was not jaded by civilization and its artificial desires. That was also the view of the ancient Chinese, like Lao-Tzu, who looked to an earlier Golden Age before civilization as we know it, which he associated with artificiality and corruption. Therefore, the Vedas could indeed combine an exalted spirituality or hidden *Vedanta* behind their Brahmanic and Shamanic concerns".[37]

In these regions, there must have been various dialects with enough similarity to enable people of neighboring regions to be able to communicate. Through interaction these dialects evolved as a formal language. Some dialects disappeared in this process. This process continued all through history and still continues.

This process is very clearly explained by Rajaram, "Field studies with American Indian languages show that the more primitive a region, the greater the variability in languages. So if anything, *there were more, not fewer languages in ancient times*". He also observes, "A language like Sanskrit must have evolved as a synthesis of different languages used as a common medium. The very name 'Sanskrit' meaning 'cultivated' suggests such a possibility". Thus the evidence contradicts the notion of a Proto/Indo/European language and the idea of the language tree. Sanskrit emerged as the language of Northern India around 4,100 B.C. Sanskrit with an alphabet consisting of 50 letters is considered to be the most phonetically complete language. Vedic *Chhandas* were composed by 4,500-4,000 B.C. The order in which languages developed in northern India seems to be:

1. Sanskrit *Chhandas*
2. Brahmi script
3. Prakrit, Pali
4. Hindustani/Hindi

All four languages use Devanagari script.

From Sanskrit, the *Prakritas* were developed. By dropping the strict scientific rules of Panini's grammar, Buddhists helped in the development of *Prakritas*. Hindi and other languages are also *Prakritas*. The *Prakrit Vyakarana* has rules derived from Sanskrit but in an *apabrahmsha* (distorted) form. Brahmi was perhaps the oldest script. *Shaarda,* another ancient script is the basis of Indian languages such as, *Gurmukhi* and *Saindhavi.*

Language Affinities

For over two centuries, linguists have been seeking connections between languages of the world. Many theories have been advanced. We know that there is a similarity between the languages of Europe, South Asia and Central America. These similarities led to the common belief that there was a common language. At the same time it paved the ground for theorists to assume wrongly that this common/parent language originated in Europe. The linguists got these ideas from the study of Sanskrit grammar (*Vyakarana*). This study was then used to prove linguistic affinities and to construct the myth of Aryan invasion/migration. The researchers from various fields of science have discredited these theories.

Connection in languages is linked with three important developments:

a. Origin of human speech.

b. Interaction between communities at a time when political boundaries did not exist.

c. Appearance of common words in many dialects due to the interaction and marine trade between people of different regions.

These developments give us clues to the connection between Mleccha—spoken in India and the language of Mesopotamia. It also explains "why the languages and cultures of Southeast Asian countries like Indonesia, Cambodia, Thailand and others also show the remarkable influence of Sanskrit".[38]

In 1971, a study was carried out by three mathematicians – Kruskal, Dyen and Black[39] to prove the connection between Indian (Sanskrit) and Iranian languages. Based on quantitative analysis, they found that Indian and Iranian languages failed the grouping test.

When the issue of language affinities is studied in a broader context, the following picture emerges:

A *statistical analysis of Indian and Iranian languages* proved that there is no Indo-Iranian connection.

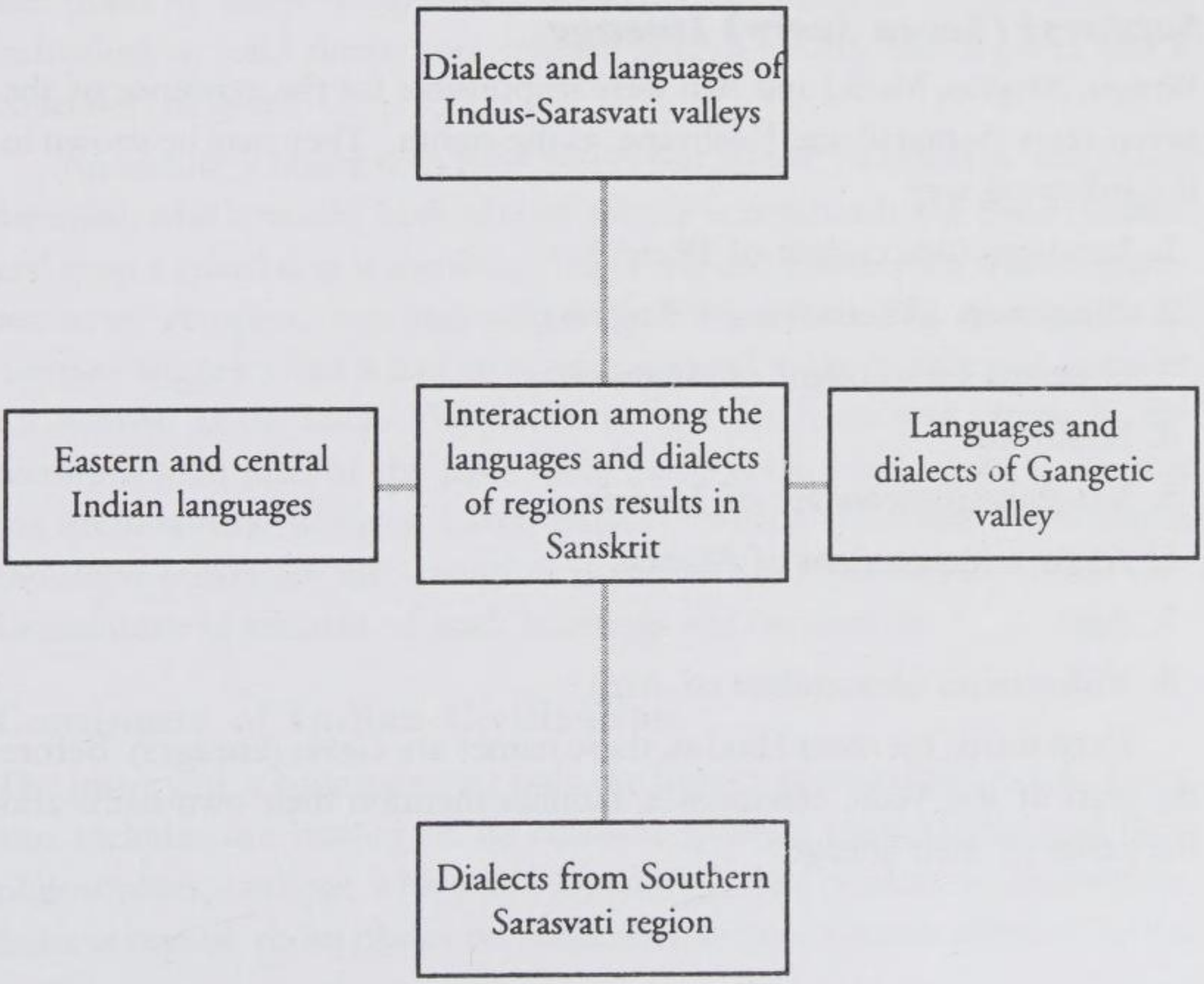
Genetic data disprove the linguistic or caste and/or race based division of Indian population.

As far as literature is concerned, Central Asian people including the Kurgan people have left no written records. Vedas are the only surviving record of antiquity. The race and invasions have absolutely nothing to do with the development of human speech or evolution of several dialects and Sanskrit language. Further, there was no such language as Proto/Indo

European. Therefore we have to agree with Cavalli-Sfroza when he says, "Without written documents, it is very difficult to say what language was spoken in this region at the time".

With all this new evidence coming from the material sciences, one can conclude that there was a westward movement of people from the Indian subcontinent and with those people went the elements of languages like Mleccha and Sanskrit to be absorbed in the existing languages of several central and western Asian regions.

If there are hundreds of languages in India today, there must have been many more then. Several words can be found in the Webster's dictionary, which are of foreign origin. There was no invasion of the country. Migratory people and not invaders brought these words and terms which were gradually absorbed in the English language. The common assumption for the past three centuries has been that the evolution of human speech looks like a tree. The tree reflects one language at the base branching into several variations in different parts of the world. Actual human experience confirms that the evolution of human speech was more like a pyramid.


Dialects and languages of Indus-Sarasvati valleys
Eastern and central Indian languages
Interaction among the languages and dialects of regions results in Sanskrit
Languages and dialects of Gangetic valley
Dialects from Southern Sarasvati region

Thousands of dialects and languages merge to create fewer languages. This is the evolution of human speech. Formalization and precision follows the initial attempts at communication. Invasions and conquests have led to the disappearance of many dialects. Colonization of the American continents wiped out hundreds of Native American languages. Only four languages are left there—English, French, Spanish and Portuguese. In Western India, there were several dialects written in Devanagari and Urdu, now only Urdu and Punjabi are left.

The adoption of English as an important language of India has led to the non-usage of several languages in India alone. In the ancient times when Sanskrit emerged as a language with precise rules of grammar, it is possible that many spoken languages disappeared after adopting Sanskrit.

Seers and Thinkers

Some of the earliest illustrious seers and thinkers were – Bhrigu, Angirasa, Marici, Atri, Vasishtha, Agastya (he was Vasishtha's brother) and Vishvamitra. These visionaries composed most of the Vedic hymns. Bhrigu and his descendants lived in the western part of the subcontinent and Vasishtha and Vishvamitra in the Sarasvati/Sapta Saindhava region.

Saptarsi (Seven Seers) Lineage

Bhrigu, Angiras, Marici and Atri were responsible for the existence of the seven-seers (Saptarsi) and Kashyapa, as the eighth. They may be shown in the following way:

1. Jamdagni (descendant of Bhrigu)
2. Bharadvaja (descendant of Angirasa)
3. Gautama (descendant of Angirasa)
4. Kashyapa
5. Vasishtha (descendant of Marici)
6. Agastya (descendant of Marici)
7. Atri
8. Vishvamitra (descendant of Atri)

Even today, for most Hindus, these names are *Gotras* (lineages). Before the start of the Vedic ceremonies, families mention their own name and the name of their lineage.

Kings, Kingdoms and Dynasties

Several kings are mentioned in the Puranas who belonged to an earlier phase of the Vedic age. However the dynastic period began in around 4,000 B.C. During the early part of the Vedic period, five dynasties were ruling in the region from Afghanistan to Bengal and Himalayas to the Vindhya Mountains. These were—Druhyus, Purus, Anus, Yadus and Turvashas.

The Puranas mention that these dynasties were started by the five sons of Yayati, the descendents of Vaivasvat Manu. Yayati divided his territory among his five sons. Druhyus ruled the region west of Afghanistan, Purus the area between the river Indus and river Ravi, Anus the northern part of the subcontinent, Yadus the area which is now Gujarat and Sindh and the Turvashas ruled the central plains and the eastern part of the subcontinent.

Villages and Residential Places

Rig Veda refers to a settled space as *grama* (a village) and to the forest as *aranya*[40]. But within the *grama* could be a fort or a high town (*pur*). The *pur* made of stone is also mentioned in *Rig Veda* (RV).[41] In many other hymns, *purs* made of metal (iron) are mentioned.[42] The place of residence of the individual or joint family was called a *grha* (a house), and a *grama* was a collection of *grhas*.

An ordinary house with roof was called *chardis*[43]; a mansion was called *harmyam*, which would have several rooms accommodating joint families and even a guard dog at the door.[44] *Rig Veda* also mentions a *Gotra* a multi-residence complex, together with halls for animals. The description of *harmyam* suggests that it had an open courtyard in the middle and quarters for women at the back. This indicates that the form was similar to the recommended plan of the later *Vastu Sastra* texts. *Vastu Sastra* is the text for architectural designs. Large palaces[45] with a thousand doors and a thousand pillars are also mentioned in the *Rig Vedic* verse – 10.18.12.[46] Unfortunately, remains of such buildings did not survive.

Continuity of Indian Civilization

The history of a country is not only the history of its ruling people, but it also includes the history of its eminent spiritual personalities and their philosophies, without which the history of that country is incomplete. India is one of those places on earth that were not much affected by the

Ice Age and its aftermath. The prolonged winters, icy cold storms and blizzards that happened in America and the European countries during the recessing period of these Ice Ages did not affect India because of its location. Thus, the history of the uninterrupted survival of the civilization of India for the most part goes back to an unbelievable period of time which could easily be said to be the beginning of the human civilization on this planet, whereas the history of other countries of the world—closer to the Arctic seems to be the history of only 6,000 to 8,000 years.

Regarding the continuity of Indian civilization, Jim Shaffer writes, "Current archeological data do not support the existence of an Indo-Aryan or European invasion into South Asia anytime in the pre or proto-historic periods. Instead, it is possible to document archeologically a series of cultural changes reflecting indigenous cultural developments from prehistoric to historic periods".

Although there were cultural changes due to ecological changes and increasing complexity of social/economic life, these changes did not affect the continuity of civilization.

Effects of Invasion on Indian Civilization?

Hinduism is the oldest living religion—evolving, growing, diverging to include all explanations of reality but always converging to its essence. Despite several invasions starting with Alexander's march, cultural and faith traditions survived with marginal changes. The invasions starting with Alexander's invasion some 2,300 years ago had very little connection with the growth or changes in Vedic or post-Vedic civilization.

> "Modern historians of the area no longer believe that such invasions had such great influence on Indian history. It's now generally accepted that Indian history shows a continuity of progress from the earliest times to today. The changes brought to India by other cultures are not denied by modern historians, but they are no longer thought to be a major ingredient in the development of Hinduism."[47]

India had a long oral tradition of literature most of which was passed on in absolutely accurate rhythm. Some parts of the epics were enacted as drama each year and that preserved major parts of the literature. Most of the ceremonies use the prayers, oblations and offerings which are from the Vedas. The perceptions and practices of an average Hindu are very close to the vision and spiritual quest of the ancient sages—the composers of the Vedas. The stage performances of dramas also promoted fine arts such as music, dance and puppetry. In turn, *Dharmic* practices were enriched

by the aesthetics of these arts. These renditions preserved literature through the subsequent ages and in spite of all the destruction of libraries in the famous universities such as Nalanda and Takshashila.

Sari, the oldest dress style still adorns women and *dhoti* is still the dress of Indian men. The red mark still adorns the forehead of Indian women and *namaste* is still the usual way of greeting people. Besides these outer and expressive aspects of culture, the most cherished surviving traditions are the spiritual traditions, such as Yoga and meditation.

New Words to Learn

- Chalcolithic period – The period when etching was done on bronze and copper objects.
- Cultural diffusion – A process of assimilation of elements of culture and languages through interaction between people from different cultures.
- Cultural pollen – Pollen from plants that grows at sites of human habitation.
- Eolithic, Paleolithic, Mesolithic, Neolithic – These terms refer to various phases of the Stone Age. In Eolithic phase, people started the use of hunting tools made of bones and flints. In the Paleolithic phase, tools made of unpolished stones were used. The use of bows and arrows and pottery highlights the Mesolithic phase and in the Neolithic phase people learned to make tools of polished stone.
- Holocene – The period referring to the retreat of the Ice Age and the beginning of agriculture, starting at about 15,000 years B.C. The retreat of Ice Age covers several millennia. In 8,000 B.C. Europe and North America were still under retreating Ice Age.
- *Jeevatma* – A living thing. All living things have some level of consciousness which is called *Atman* in Sanskrit.
- Paleobotany – The study of plant fossils.
- Paleontology – The study of fossil remains of animals
- *Param Atma* – The Supreme consciousness; the concept of God (as a male figure) does not correspond to *Parmatma.*
- Pleistocene – Geological time period when the glaciers were formed and the ice started retreating.

Summary

In a borderless world when the food was plentiful in the tropical regions of the world, trade took people from one place to another. This dispersal of people led to cultural diffusion and had an impact on the dialects and the languages. The use of one formal language across various settlements could have caused the disappearance of some dialects. The promotion of language as a vehicle of literature and communication required organized society. As many dialects got assimilated into Sanskrit, it became the language of the kings and the courts. If there are hundreds of languages in India today, there must have been many more then.

Several words can be found in the Webster's dictionary, which have a foreign origin. There was no invasion of the country. Migratory people and not the invaders brought these words and terms which were gradually absorbed in the English language.

During the period from 15,000 B.C. and 5,000 B.C., the landscape changed with ecological changes. As the rivers changed course, settlements moved, many cities were either abandoned or destroyed by natural forces. This movement was more of a response to the ecological changes than to the invasions.

The Stone Age cultures started settlement around 15,000 year B.C. Around the same time these people developed agriculture independently of other ancient civilizations. By 6,500 B.C., people were living in villages, and cultivating rice, barley and wheat. By 5,500 B.C., bones of the domesticated sheep, goats, and *zebu*, the humped Indian cattle appear in abundance in the archeological records.

The residents of the Indus-Sarasvati area and Mehrgarh grew barley, and raised sheep and goats. They stored grains, entombed their dead and constructed buildings of sun-baked mud bricks. There were several agricultural settlements in various regions of India even before the Harappan Civilization. Developed cultures may have existed in India more than 7,000 years ago. This would mean that they existed even before the Harappan civilization.

Concepts to Understand

1. Origin of civilization is much earlier than previously assumed.
2. Archeological evidence surfacing from various regions of India proves that Indus Valley Civilization was not an isolated case. There were several regions where agricultural communities lived an organized life.

3. Terra-cotta figurines tell us about the religious and social life of early Indian communities.
4. Ornaments and other metal tools reveal the development of metallurgy in India.
5. A close study of language affinities prove that precise languages developed through the interaction between several dialects.
6. Human beings started as hunters, moved on to plant eating and then to using the seeds for cultivation.
7. Abundance of food required the need for storage and protection. Political society and leadership were needed.
8. Since society had not acquired complexity through private ownership of land, tribal ownership had sustained different patterns of social/ political existence.
9. Several settlements had urban culture.
10. If some more sites are found in the interior of the Indian subcontinent, more antedating of history might become necessary.

Questions

1. Study the map on page 142 and list a few cities destroyed because of the changes in the course of the Sarasvati River. Are there any ghost towns in America? If so, analyze the reasons why people abandoned these towns?

   Students may engage in a class project on this theme using the example of one such town in America and another site in the Indus-Sarasvati region discussing the life of the affected people in the aftermath of a natural disaster.
2. List various factors which lead to the decline and rise of cities and civilizations. Which factors are relevant today?
3. In the preceding chapter, how important was the role of invasions and conflicts in the shaping of the creative aspects of communities? How important are such conflicts in our day to day life?
4. In the last ten thousand years, what type of ecological changes and natural disasters occurred in India or around it? Compare these changes with those in the rest of the world.
5. Immigrants from many different countries have come to the United States. In a group project, the class may make a list of new words,

terms and expressions which came from foreign languages along with the immigrants.

6. B.R. Mani, an archeologist from India said, 'A clue to this prehistoric culture came from something as simple as a grain of rice.' Using the information from the chapter, explain how does a tiny grain of rice lead us to details about the prehistoric cultures?
7. Make a timeline of grain/rice cultivation in the Indus-Sarasvati and Gangetic valleys. In the same time frame, besides the Indian subcontinent, where else were grains grown?
8. How are pollen and winds responsible for spreading grain cultivation to far away places? Use examples.

Enrichment Activity

1. For more details, study the research paper: *The Development of Copper Metallurgy before and during the Indus Civilisation* – Benoît Mille & David Bourgarit: Centre de Recherche et de Restauration des Musées de France, UMR 171 du CNRS; JérômeF. Haquet & R. Besenval: Musée Guimet,UMR 9993 du CNRS. Source: Yahoo Groups – Kulam, Message 62, Aug.11, 2005
2. In the blank timeline given on the next page, show the emergence and highlights of civilization in other regions of the world.

Critical Thinking Activity

1. On the basis of your study of the paragraph about language affinities, explain whether the evolution of languages is like a tree or a pyramid.
   - A tree shows that from one language, several languages developed through dispersal of people.
   - The pyramid shape evolution emphasizes that through the merging of many dialects, a fewer number of precise languages developed.

Readers may select examples from the experience of American Indians whose languages have disappeared from the American continents.

The Timeline of Events
0 B.C.
3000 B.C.
5000 B.C.
6000 B.C.
7000 B.C.
8000 B.C.
The Timeline of Events
4000 B.C.
600 B.C.
700 B.C.
800 B.C.
900 B.C.
1000 B.C.
2000 B.C.

Endnotes

[1] http://kalyan97.googlepages.com

[2] Source: J. Sreedhar – a research scholar at Stanford University

[3] These are all approximate years. Further explorations and scientific evidence may lead to a change in this timeline.

[4] For the beginning of the Vedic Age, new evidence surfacing continually points to much earlier dates. Readers may note that it is the sequence of the developments and events which is important and not the exact timings. The dates may be centuries, even millennia off, if new evidence comes to light. According to Kalyanaraman, "There is a burial of a woman at Mehrgarh with wide cut *sankha* bangle dated to 6500 B.C. The reference to *sankha* cutter (*s'ankha kr.s'aana*) occurs in the *Rig Veda* and *Atharva Veda*. The *s'ankha* industry continues even today after 8500 years."

[5] Refer to the map of Indian rivers provided in section 2, chapter 5.

[6] Source: Visva Bharati University, Archeological department, as reported by Press Trust of India, January 2006

[7] Reported by ASI in February 2006

[8] Students should review the chapter on Submerged cities of India

[9] Refer to: April 18, 2006, *Telegraph*, Kolkata
Scientists: Shikha Sharma, a scientist with the University of Wyoming in the USA. Her study appeared in *Journal of Current Science*, vol. 974 dated April 2006. She was the lead investigator with Indra Bir Singh, a geologist with Lucknow University, India and Mohan Singh Chauhan, a scientist at Birbal Sahni Institute of Palaeobotany, India.

[10] Refer to: Internet posting at Indian civilization at Yahoo Groups - "India Archaeology", by Dr. Rakesh Tewari, Director, Directorate of Archeology, Roshan-ud daula Kothi, Kaisarbagh, Lucknow 226001 (UP) India.

[11] Harappans is the name given to the people living in the river basins between River Indus and River Sarasvati.

[12] Source with quotes from Dorian Fuller (2005) and Sharma (1980): Yahoo Group: "India Archaeology", March 2006

[13] Royal Chronology prepared by Neeraj Mohanka

[14] http://timesofindia.indiatimes.com/articleshow/msid-1360459,curpg-2.cms
Report on the seminar in Vadodara

[15] *Sarasvati River and the Vedic Civilization* by N.S. Rajaram

[16] ibid. p. 115

[17] Michel Danino, *The Horse and the Aryan Debate*

[18] ibid.

[19] Source: Reuters, January 16, 2002

[20] For more detailed discussion, read chapter on Indus-Sarasvati Civilization

[21] http://mycgiserver.com/~priyadarshi786/history.html

[22] 'Ancient India and the Vedic Aryans' by Harry Hicks and Robert Anderson. The article appeared in the publication; 'Revisiting Indus-Sarasvati Age and

Ancient India' proceedings of the first WAVES conference-1996. Photo courtesy- Bhudev Sharma

[23] The mission was headed by J.F. Jarrige

[24] Refer to: http://www.ucl.ac.uk/southasianarchaeology/Indus % 20 Civilisation .pdf. Students may check the full report about evolution of copper technology in Mehrgarh.

[25] The word *ayas* included iron, when it was mentioned in scriptures. 'The existence of Iron in the Vedas, Ramayana and Mahabharata' by Ananda M. Sharan, Newfoundland, Canada

[26] Research done by Gregory L. Possehl and Praveena Gullapalli, Table 1- Radiometric dates for Megalithic iron in Peninsular India. The list of sites is from table 1.

[27] Rakesh Tewari's report published in *British Archaeology*; http://antiquity.ac.uk/projgall/tewari/tewari.pdf).

[28] Superintending Archeologist, ASI, Chennai Circle also the director of the excavations at Adichanallur

[29] http://www.hindunet.org/saraswati/razor1.pdf

[30] Dr. C M Pradyumna

[31] For more information about this news readers may check the article by Mithen, Steven (2003), "After the Ice: A Global Human History 20,000– 5,000 B.C.," Cambridge, Massachusetts: Harvard University Press.

[32] More about this theory and holes in the theory, review section 2, chapter 8.

[33] "Artifacts support the theory that man came from Africa", by David Keys

[34] An article, 'North by Southeast' by Subhash Kak http://www.sulekha.com/expressions/column.asp?cid=306006

[35] Stephen Oppenheimer's genetic map: link http:/ www.bradshawfoundation.com/journey/. Also check the article, "A note on the journey along the Indian Ocean Rim: 85,000 - 75,000 years ago" (to be elaborated). "Beachcombing lifestyle" by the same scientist.

[36] A. P. Joshi (1995)

[37] *RV and the History of India*, David Frawley, 2000

[38] N.S. Rajaram, *Sarasvati and the Vedic Civilization*

[39] *The Vocabulary and Method of Reconstructing Language Trees: Innovation and Large Scale Applications* by J.B. Kruskal, I. Dyen and P. Black

[40] *RV mandala* 10, hymn 90

[41] ibid: *Mandala* 4, hymn, 30, verse 20

[42] ibid: 1.58.8, 7.3.7, 7.95.1, 10.101.8.

[43] ibid: 6.15.3

[44] ibid: 1.166.4, 7.55.6, 10.55.6

[45] The word *prasada* means palace – source: RV 7.55.6 (Sayana's translation)

[46] 'Early Indian Architecture and Art', Subhash Kak, *Migration & Diffusion* (an international journal), vol.6/Nr.23, 2005, pp. 6-27

[47] BBC – 10.05 posted on IC @yahoogroups.com

Chapter 7

Submerged Cities and Advanced Civilizations in Ancient India

Violent forces of nature change the course of rivers, alter sea levels and swallow cities on the coast. The tsunami waves that rocked coastal India in December 2004 underlined two very important facts:

1. Nature's catastrophes such as this show us that many settlements and civilizations might have been destroyed by earlier natural disasters.
2. The map of the shoreline settlements can be altered in less than an hour.

Gulf of Khambat: Its Creation and the Submerged Cities

Gulf of Khambat also known as Gulf of Cambay is on the west coast of Gujarat. This Gulf was created by the submergence of coastal areas of Narmada and Tapti river beds about 10,000 years ago.

The west coast of Gujarat lies at the junction of the African, Asian and Indian plates and is riddled with many active faults and has been an active seismic zone. It is vital that a multidisciplinary study by a group consisting of oceanographers, geologists, geophysicists, sedimentologists, engineers and meteorologists makes an intensive study of the region to elucidate the history of the development of this terrain. Such a study will unearth valuable evidence for linking early periods of Indian History. The geologists have discovered that the western part of the river bed sank. "As we explore more, we will find many more settlements in the coastal regions. Before 5000 B.C., the sea level was 40 meters lower."[1]

So far, several new cities and temples under water have been found. The map at the end of the section shows the river beds of the Narmada and Tapti rivers on the west coast.

Excavations Before 2002 Around Dwarka

Marine Archaeological explorations around Dwarka: The on-shore and offshore explorations carried out in and around Dwarka during the last 50 years have revealed that Dwarka was a prosperous city in ancient times, which was destroyed and reconstructed several times.

Near the existing Dwarkadhish temple, two excavators; Z.D. Ansari and M.S. Mate accidentally found temples dating to the 9th century and first century A.D. Following this the Archaeological Survey of India and the National Institute of Oceanography set up another institute – Marine Archaeology Center. The staff of M.A.C. consisted of experts underwater explorers, trained diver-photographers and archeologists.

The new technical tools for geophysical survey such as the use of echo-sounders, mud-penetrators, sub-bottom profilers and underwater metal detectors were used. This team carried out 12 marine archeological expeditions between the year 1983 to 1992 and the articles/antiquities recovered were sent to Physical Research Laboratory for dating. By using thermoluminescence, carbon dating and other modern scientific techniques, the artifacts were found to belong to 15th to 18th century B.C.[2]

These underwater archeological explorations confirm the dates arrived at through astronomical calculations given in the various early texts.[3] These also prove that the reconstructed city of Dwarka was a prosperous port town, and that some parts of it were in existence till the 15th century B.C. before being submerged under the sea. It is likely that some settlements further away went under water at earlier times. Several legends mention the city of Dwarka. The city itself was considered mythical till the marine archeologists found artifacts and relics from underwater.

Often unrecorded events are passed on to others through oral tradition and legends are woven around the main events. We should learn to sift evidence and be able to separate myth from the historical facts. At the same time we should be cautious not to discard the entire account of the event by wrongly declaring it as a myth.

The Story of Dwarka

The fascinating story about the discoveries from under the ocean continues to surprise us. In the first part of the year 2002, some divers from the National Institute of Ocean Technology were doing a routine check of the pollution of ocean waters. They took sonar photos. During the study of these photos, it was found that they had accidentally stumbled on the

ruins of the city of Dwarka, some thirty kilometers away from the western coast of India in the Gulf of Khambat (Cambay).

Explorers believe they discovered remains of Dwarka believed by some people as mythical. According to *Mahabharata*, it was swallowed up by the sea a little after the war about 5,000 years ago. It is estimated that the vast city—which is five miles long and two miles wide, most likely predates the oldest known remains in the subcontinent. About 2,000 artifacts were found 40 meters under the ocean. The artifacts were spread over an area of 9 kilometers. There were remains of rectangular buildings, bathing facility, chiseled stone tools, broken pieces of potteries, jewelry, and human jaws and teeth. These artifacts were sent for further study to B.S. Institute of Paleobotany at Lucknow, India and National Geophysical Research Institute at Hyderabad, India. The carbon testing has determined the tentative age of some of these relics as 7,500 years. This could be one of the oldest cities known. Some of the fragments of pottery, carved wood, bone and beads have been dated to more than 9,000 years ago. Historians watched curiously as the scientists announced the discovery of an ancient metropolis 120 ft. under the sea in the Gulf of Khambat in northwest India.

These facts will bring revolutionary changes in the arbitrary fixation of the chronology of Indian history by many compilers of history books.

Many scientists in the field believe, "The Gulf of Cambay is one of the largest tidal areas in the world—with a current of very high velocity— and so it is conceivable that the Arabian Sea may well have submerged an entire ancient settlement." This was not a one time event. The time frame of the relics varying by several millennia clearly indicates that there must have been several settlements which were submerged under water besides Dwarka. Because of this variation, it is also likely that Dwarka was submerged in the deluge of 3000 B.C. According to Graham Hancock the discovery supports his theory that complex civilizations existed in the Ice Age. These civilizations were wiped out when the ice melted, submerging 15 million square miles of land.

Dwarka stone seal found by the divers
Picture Courtesy: Dr. S. Kalyanaraman

Powerful forces of nature alter coastlines of continents and bring geophysical changes in the interior of the country by submerging old deltas of the rivers and the settlements around the rivers. The task of under water exploration and the nature of finds offer clues to put pieces of the civilization together.

Given below are a few reports. After reading these reports, students may link the past with the present by drawing parallels between the hurricane disasters at New Orleans (USA) with many others in the past. What are the chances that the written records of the older civilizations might have been lost?

Indian seabed hides ancient remains[4]

Tuesday, 22 May, 2001, 18:14 GMT 19:14 UK

By Rajyasri Rao in Delhi

"Marine experts have discovered a clump of archeological structures deep beneath the sea off India's western coast."

A year later, a similar report was made confirming the ongoing exploration about the new finds.

Lost city 'could rewrite history' makes a fascinating story[5]

Saturday, 19 January, 2002, 06:33 GMT

The remains of what has been described as a huge lost city may force historians and archeologists to radically reconsider their view of ancient human history.

About 120 feet underwater in the Gulf of Cambay off the western coast of India marine scientists have discovered archeological remains which could be over 9,000 years old. "Debris recovered from the site - including construction material, pottery, sections of walls, beads, sculpture and human bones and teeth has been carbon dated and found to be nearly 9,500 years old."[6]

These two stories appeared in the media a year apart. It is clear that the excavation and the study of the artifacts are still going on. Many scientists from other countries have actively joined the process of underwater excavations.

It is interesting to find that the history books published as late as 2004 have not as yet included this information in the books.

This Time the Scene is Southern India

More Historical Sites found Submerged in the Sea, Predate Civilization in South India[7]

An expedition from the Scientific Exploration Society and India's National Institute of Oceanography discovered the ruins off the coast of Mamallapuram in Tamil Nadu – southern state of Madras.

A recent report was made in a newspaper under the following heading:

"Killer waves unravel past"[8] Chennai, Feb. 12: "The waters that killed thousands have brought to life creations of the past. As they receded, taking away chunks of the sandy beach near the ancient shore temple in Mamallapuram, the waves unraveled boulders with elegantly carved figures which, sources said, could trigger a search for six other *shore temples* believed to have been *submerged long ago.*" It seems possible that another tsunami, similar to this one, swallowed the other six temples. Archeologists believe that these temples were built between the seventh and eighth centuries by the Pallava kings in the ancient Pallava port town 50 km from Chennai.

Receding waves revealed the following:

Beautifully-carved elephant head with winnow like broad ears and trunk curving upwards to its left and the figure of a horse. Above the elephant's forehead is a small, almost square, hole with the carving of a deity inside, very similar to the period's rock-cut shrines — temple-like structures with deities scooped out of the monolithic rocks. According to archeologists, during the Pallava period in the seventh and eighth centuries, lions, elephants and peacocks were commonly used to decorate the walls and the temples.[9]

Architecture and layout of the temple:

An 8 x 8 square metre *Garbha Griha* (sanctum sanctorum) and an entrance porch in front facing the east towards the sea were also found. After an open courtyard of 15 feet width, a two-metre thick *prakara* wall is still there. Moldings including parts of the top of a temple and some other carved segments were also found. It is estimated that the temple was 20 meters wide and 25 meters long. Archeologists found another long-buried boulder with an elegantly sculpted lion on it. It, too, has a mini-shrine-like structure cut into the rock. The temples and the sculpture belong to the Pallava period. A third structure found also indicates remains of a temple.

Other Recent Finds

Some more information emerges from excavation at a seaside city.

Ancient Seals Found by ASI at Hatab Excavation Site[10]

Hatab is 12 miles from Bhavnagar city in Gujarat. At this site, about 160 seals with Brahmi Script were found. These seals are 2,000 years old. This city might be Ashtakapra mentioned in the Greek literature. As to the location of the city, there are details in the Greek literature referring to the city being in 'Siristhrin' (modern day Saurashtra), opposite to 'Barigaza' (Bharuch) and near (Namades) the Narmada River. Seals might have been used to stamp items exported and to collect taxes from the ships at the sea port.

According to the ASI report, "The city has been recorded in history as a flourishing port in the 2nd, 5th and 6th century. The seals come from a pocket of the mud fortified ancient town, which is surrounded by a moat. The moat has an inlet that leads to the Gulf of Cambay thus suggesting sea trade." These and earlier artifacts found in the area confirms that India had maritime activities and extensive trade with other countries such as Rome and Greece. "Proving this fact are finds of the ASI like the Roman *amphora* (double-handled wine jug peculiar to Rome), copper coins and terra-cotta artifacts."

There is a *corroborating* reference in Kautilya's *Artha Sastra* mentioning the practice of collecting taxes from ships sailing in the sea and rivers. These tax collectors were called *Antapala* (officers posted at the border coast to ensure the quality of the goods exported and the collection of taxes).[11]

Besides these seals some other important artifacts were found at the same site. These are figurines of a humped bull, terra-cotta bust of a woman and a step-well.

Summary

Marine archeologists have found several artifacts from the ocean near the western coast of India and the eastern coast of Southern India. Even though these relics are water beaten, yet they enable us to conclude that there were civilized cities which submerged due to the rising sea level and the subsequent encroachment of the coast.

Concepts to Understand

1. Earthquakes and tsunamis led to the destruction of coastal cities and altered the map of some ancient kingdoms.
2. Marine archeologists help us by bringing new evidence from under the sea water.
3. We can piece together this new evidence to have some idea of the washed away settlements.
4. The natural history of a place gives us pointers to construct historical events.
5. The newly found relics from the submerged cities validate some of the oral traditions of the people.

Questions

1. What are some of the geophysical changes one can expect in the future?
2. Students may write a report on the role nature plays in shaping human history.
3. The work of the Archaeological Survey of India is helping connect us to India's past, what are some other disciplines and departments which can help us in this process?
4. 'Structures which appear to be man-made were found at the depths of five to seven meters of sea water. Local legend tells of a great city containing seven temples, so beautiful that the jealous gods sent a flood to engulf it.' How does oral literature preserve history?
5. Here is a headline: "Geologists and archeologists find ancient cities after the tsunami of 12-26-04". Should this be considered a primary source of history?
6. With more information pouring in about the ancient cities, should we consider our current knowledge of ancient civilizations complete? Discuss one major find (accidental or made during excavations) predating ancient history of India by several millennia and that many history books have not caught up with.
7. On a blank map of India mark the approximate location of three ancient sites; Mamallapuram, Khambat and Dwarka.
8. Ancient seals were like rubber stamps used today signifying government approval. Give five examples of stamps the American government (or your government) uses that have come to your notice.

Enrichment Activity

1. It is suggested that the students watch the movie 'The Inconvenient Truth'. The movie warns us against the possibility of the rising ocean levels devouring chunks of coastal areas all over the world. Students may also read; *Underworld: Flooded Kingdoms of the Ice Age* by Graham Hancock
2. Check the color map in the pictures section after section 3, chapter 17 and discuss how parts of the river basin between Surat and Junagarh could have gone under water. When the basin goes under sea, the cities and settlements on the banks go under as well. Can such a thing happen as a result of global warming? Students may take the example of the recent devastation of New Orleans in Louisiana, USA.
3. At the seaports and national borders, are there any checkpoints? Discuss with the class your experience when you cross borders or when you send things across borders.
4. What are import and export taxes? Do you think the *Antapalas* referred to in the chapter were collecting these kinds of taxes?
5. What is the relation between scientific method and pseudo-scientific theories? Students may evaluate the following paragraph in order to answer the above question:

"In the scientific method, one makes observations and comes up with a hypothesis that makes accurate predictions. The results obtained by the scientific method are repeatable and the hypotheses themselves are potentially falsifiable by new evidence. On the other hand, pseudo-scientific theories make assumptions that can neither be proved nor disproved, but are taken as truth. Such theories do not follow the rules of logic and disregard scientific evidence. A field that qualifies as a pseudo-science is philology, which was developed in the 19th century."

Critical Thinking Activity

1. Once called legends, oral history passes on the story of the past to the future generations. The following report underlines this connection:

A spokeswoman for the Scientific Exploration Society said: "Southern India has a big tradition of legends that large areas were inundated by the sea. It's difficult to tell how old the site is." The newly found ruins include walls, steps and stone blocks. The structures have been severely damaged over the years but are clearly man-made.

On the basis of the above, students may answer the following questions:

a. Should historians continue further explorations?

b. After a detailed study involving dating of the artifacts, should historians predate their accounts of recorded history? Explain your answer.

2. Study the following paragraph and discuss how 8000 years ago, Europe was affected by the retreat of the Ice Age. To what extent can historians rely on the ecological changes for arriving at an authentic chronology of the beginnings of civilization?

Changes in the pattern of ocean currents have a great impact on the climate. The climate in turn changes the life of communities and leads to the dispersal of people. Gavin A. Schmidt, a researcher at the NASA Goddard Institute for Space Studies (GISS) says, "If we're going to accurately simulate the Earth's future, we need to be able to replicate past events."[12]

Endnotes

[1] N.S. Rajaram

[2] Students may refer to Dr. S.R. Rao's work, *The Lost City of Dawarka*

[3] *Srimad Bhagvad Purana, Matsya Purana* and *Vayu Purana* have similar corroborative references.

[4] http://news.bbc.co.uk/hi/english/world/south_asia/newsid_1345000/1345150.stm

[5] Reported by Tom Housden – BBC online

[6] http://news.bbc.co.uk/hi/english/world/south_asia/newsid_1768000/1768109.stm

[7] http://www.telegraphindia.com/archives/archive.html

[8] The reference is to the tsunami of December 26, 2004

[9] Source: Newsday.com: *Tsunami Uncovers Ancient City in India.* Also another report- *Tsunami Uncovers Ancient City in India*, by Associated Press February 18, 2005, and Statesman News Service, Chennai, March 31, issue with the headline- 'More temples pop out of sea-bed'.

[10] News item about the discoveries by the Archaeological Survey of India was reported by its superintending archeologist and director of excavations, Shubhra Pramanik.

[11] Jahnavi Contractor, *The Times of India,* March 8, 2003. For detailed report of the ASI refer to the link- http://timesofindia.indiatimes.com/cms.dll/html/uncomp/articleshow?

[12] Refer to news item dated March 2006, '*Computer Model Confirms Ancient Flood*'- reported in *Geek's Garden*

Chapter 8

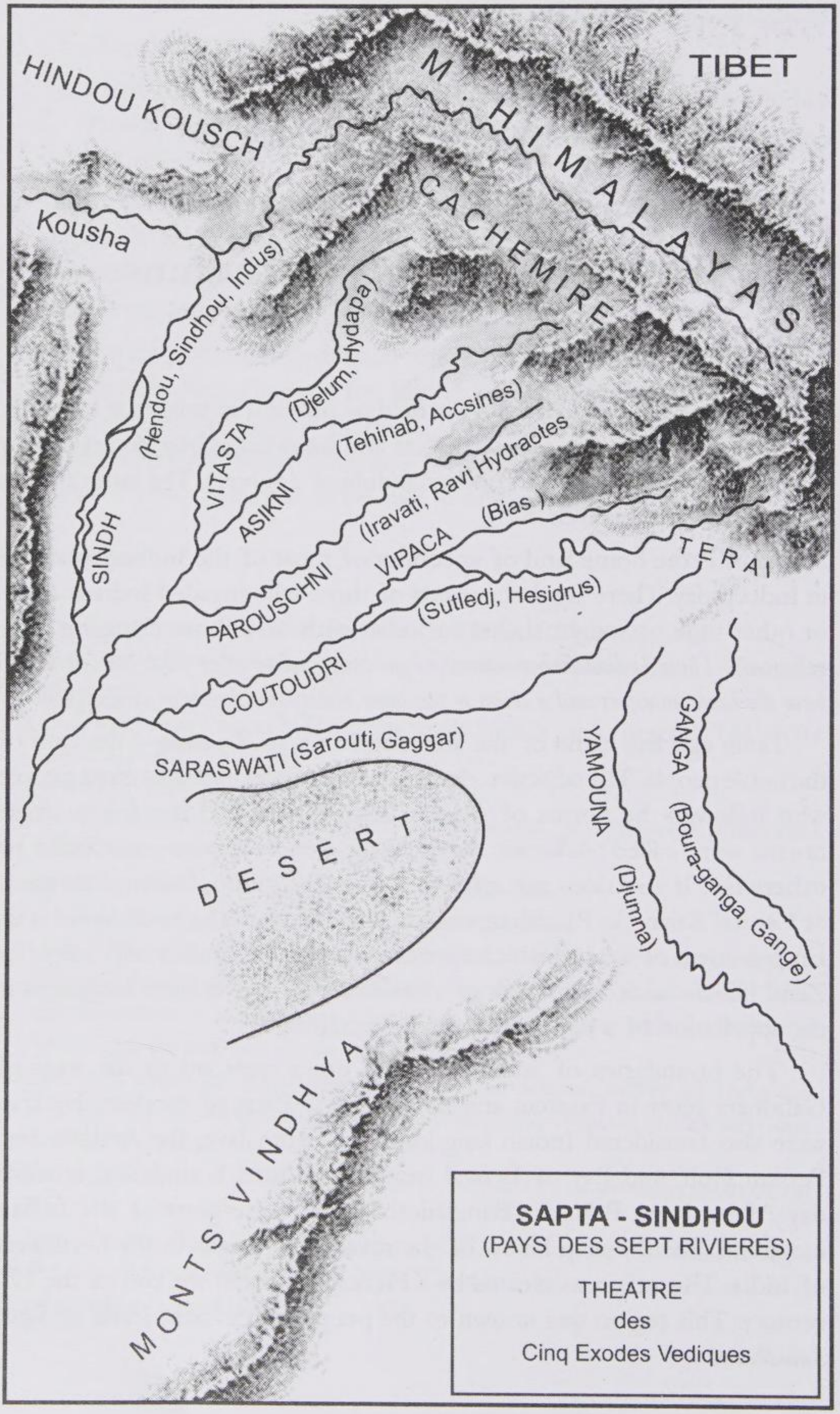
Homeland of Early Indians

As a general rule, researchers in the field of physical sciences use scientific methods to build upon collected facts and knowledge base to arrive at a greater knowledge or deeper understanding of a subject. The same applies to social sciences as well.

India is the home land of ancestors of most of the Indians who live in India today. There are descendants of those who invaded India at some or other time or sought shelter in India (with or without changing their religion). *Those Indians whose ancestors got converted to other faith traditions still have the same ancestors and a claim to the same history and legacy of civilization.*

Long ago the name of the subcontinent was *Aryavrata*—the land of the noble people. The adjective *Arya* (meaning noble) indicates those people who followed the norms of *Dharma*. Others who did not follow these norms were called *Adharmic*. **Arya never denoted race—nomadic or otherwise**. It also does not refer to a language group, Indian, European or Central Asian. As P.L. Bhargava aptly points out, "The term Aryan is an English form of a word which appears as '*Arya*' in Sanskrit and '*Airya*' in Zend (*Zend-Avesta*, holy book of Zoroastrians), and in both languages is the appellation of a people and not of a language."

The boundaries of India of those times were up to the west of Gandhara (now in Pakistan and Afghanistan). Parts of modern day Iran were also considered Indian kingdoms. The Himalaya, the Arabian Sea, Persian Gulf, and Bay of Bengal being the natural boundaries; modern day Afghanistan, Pakistan, Bangladesh, Nepal were parts of the Indian kingdoms. See the map below of the seven river basins in the northwest of India. This map was created by a French scholar at the end of the 19th century. This region was known to the people of Ancient India as *Sapta Saindhava*.[1]


HINDOU KOUSCH
TIBET
MONTS HIMALAYAS
CACHEMIRE
Kousha
(Hendou, Sindhou, Indus)
(Djelum, Hydapa)
VITASTA
ASIKNI
(Tehinab, Accsines)
(Iravati, Ravi Hydraotes
(Bias)
VIPACA
PAROUSCHNI
SINDH
TERAI
(Sutledj, Hesidrus)
COUTOUDRI
SARASWATI (Sarouti, Gaggar)
DESERT
YAMOUNA (Djumna)
GANGA (Boura-ganga, Gange)
MONTS VINDHYA
SAPTA - SINDHOU
(PAYS DES SEPT RIVIERES)
THEATRE
des
Cinq Exodes Vediques

It may be noted that this map drawn more than a century ago shows river Sarasvati joining Indus River. Satellite images of the river prove that this river made a huge delta before emptying into the Arabian Sea.[2]

There were several kingdoms all over the subcontinent. It is very clear that the boundaries of countries and kingdoms have changed several times over the course of history. This is understandable considering that even in the last sixty years the political map of the world has changed several times.

As the above map shows, the existence of Sarasvati River was known to Europe in the mid 19th century and many scholars acknowledged that Sarasvati River had existed at some point in the history of India. Sarasvati River was never mentioned in the books. Sarasvati is still labeled as a mythical river in spite of large archeological evidence to the contrary.

There is an ongoing debate on the theory created by some colonial writers in the 18th-19th centuries that the ancestors of the present day Indians came from some mountainous terrain or the deserts of Central Asia. *This myth is the Aryan Invasion Theory* (AIT). A theory needs to be substantiated with other corroborative evidence that may verify facts about the reality of Indians from the Indian homeland or otherwise. Except for some linguistic similarities between Latin and Sanskrit, the promulgators of the theory have not presented any evidence in support of their theory. Many scholars have questioned this theory and have demanded proof. Proof of the theory and the primary sources are still missing from most of the textbooks which use AIT as the starting point for Indian History. Till this time, this theory does not seem to stand except on a lame leg of philology.[3] When all the other evidence is thoroughly examined, it turns out to be just a theory.

In the following pages we will explore all aspects of the myth and reality of the AIT with scientific and other evidence. There is something interesting about the properties of a myth. The arbitrary date assigned to the invasion keeps changing from author to author and decade to decade. Invasion of Aryans (from a mythical homeland) and subjugation of the natives are promoted in contradictory ways. On arrival in India, these Aryans destroyed the native populations (recently a convenient title of aborigines has been invented for the natives), perhaps they destroyed the dark skinned people who conveniently ran to Southern India and in the process left all of their achievements behind. Both assumptions are close to the perspective and historical experience of the western indologists[4]. History of the western hemisphere of the period during 1,600-1,900 has been shaped and

interpreted in terms of racism, color-based slavery and decimation of native Americans. The AIT (Aryan Invasion Theory) is so entrenched in the minds of the compilers of history books that the real evidence is simply not admitted even for verification of the theory.

Aryan Invasion Theory and Confusion in the History Books

The Original Thesis Created in the 18th-19th Centuries

Max Muller in the 18th century came out with the theory on behest of the Theology department of Oxford University. He stated that around 1500 B.C. Central Asian nomads moved into the northwest of India and conquered the prevailing civilizations. He based his theory mainly on the linguistic similarities between Latin, Sanskrit and Iranian. The time of this event was based on his belief that the world was created in 4,004 B.C.

The theory was based on the following linguistic evidence and assumptions:

a. There are similarities of words in various languages (Latin, Iranian and Sanskrit, for example).
b. That means there must have been one parent language.
c. That parent language was Proto Indian European (known as PIE) and, its origin was in Europe.

The problem of PIE as an unscientific idea has been explained in section 2, chapter 6.

In the 1920s, the ruins of highly technologically advanced civilizations of Harappa and Mohenjodaro were discovered. Some adjustments had to be made in the old theory. The new theory stated that the Aryans massacred the inhabitants of these places who had no language but were highly advanced technically. Having done that, the Aryans advanced towards east and the south conquering the natives of the place. In a nutshell, the hypothesis is that the Aryans whose descendents the present day Indians are—were invaders from Central Asia. They arrived around 1500 B.C. and ruthlessly destroyed the original civilizations.

Later on some historians also added a few adjectives to describe these invaders. Adjectives such as fierce, barbaric, ruthless, warmongering, nomads, cattle stealing aggressors etc. are actually subjective opinions of such writers. Undaunted by the new evidence to the contrary, and unresponsive to the challenges, some indologists have continued with the original myth of the barbaric Aryans. Almost all the textbooks used the world over begin their section on Indian History with the arrival of the Aryans.

This theory further claims that, shortly after arriving in India thereafter the Aryans developed a very sophisticated language; Sanskrit; composed Vedas in poetry and through oral rendition left to the posterity the whole literature intact with its lyrical quality undamaged. Upanisadic philosophy, life sciences, science of the use of weapons, astronomy, *Gandharva* arts (drama, dance and music), and architecture *Vastukala* were all developed in the short period of the next 1,000 years. Hinduism (then called *Dharma*) emerged at the same time as an eternal path of righteousness providing guidelines for social and personal life. Society was organized along the division of occupations. A vast amount of literature was created. All of these achievements were made in a short span of time by the barbaric nomads.

A question arises, if these people were so prolific in the new environment, they must have left a rich culture behind them in their old countries/region. In that case, what were the highlights of that and where are the traces of that legacy? Another question arises—after they left their original homeland, what happened to their descendants, unless every one of them packed up and marched or rode on their chariots through the mountainous terrain of Hindu Kush Mountains. *For every assumption there has to be some vaguely remembered reality. In over two centuries, no such thing has been brought forth from Indian literature or from the oral tradition of any other country.*

According to the writers (in AIT camp)—Aryan is a word denoting race. This race was light skinned. These Aryans moved from somewhere in Central Asia[5] yet they brought European languages (not Central Asian languages whatever those were at that time) which later developed into Sanskrit.

These theorists further mention that barbaric Aryans worshipped a war god called *Indra* who helped them destroy *Vritra* – the native dark skinned people.[6] This light skinned race eventually conquered the dark skinned Dravidians of the south and inhabitants of the Indus Valley—in the west who were advanced in technology and urban planning but were not warriors. Though the pictures on the seals reveal much likeness between the seals found in the basin of the other six rivers, the theorists still undauntedly maintain that there was a racial divide between the Indus Valley Civilization and the people living on the banks of the Sarasvati River. One glaring contradiction to the dark South Indians and white Aryans is that all through ancient literature King Rama (Aryan) is mentioned as a dark person and Ravana of Sri Lanka as light skinned.

Sometimes, some books include a quote from the Vedas. That quote does not help the students because; it is hard to draw proper conclusions without mentioning the original Sanskrit verse, source of the verse and the context of the hymn.

These theorists also depend on the assumption that the horse was not a native animal of the Indus-Sarasvati Valley Civilization; therefore, the Aryans brought the horses from Central Asia. Many historians base the entire theory on the absence of the horse. This assumption will be disproved with the recent finds from the sites of the Indus-Sarasvati Valley Civilization.

There is a Matter of Contradiction in Chronology

As with any other theory, theorists disagree on details. In this case most of the writers have created contradictory scenarios. An interesting fact of the false chronology is that the time frame—1500 B.C. changes with different authors, varying by as many as hundreds of years.

It happened somewhere between 1,500-1,200 B.C. *Cambridge History* (vol.1) mentions this date to be 'probably' 1200 B.C. Will Durant assigns 1600 B.C. as the date.[7] As they conquered the natives, they organized society along the class and caste lines. In the time frame given by the theorists, the creation of a complex social system, political institutions, writing of Vedas using 26 rhythm schemes while continuously fighting with the natives—seems to be a remarkable feat. *Why did the Aryans not leave some traces of all this creativity in their homeland is a question which requires well-researched answers.*

The Following is the Narration of *the Theory* from *Encyclopedia Britannica*[8]

It refers to the AIT, "Theories concerning the origin of the Aryan whose *language is also called Aryan."* Alluding to the works of the 17th, 18th century European scholars, *Encyclopedia Britannica* suggests that their story telling about India's past "resulted in the theory".[9] It further says, "The movement itself remains hypothetical."[10]

The Broad and very Clear Implications of these Statements

a. AIT is just a theory. It is not an absolute fact of History. Migration of Aryans is hypothetical.

b. It is the 'brain child' of European scholars of 17th and 18th centuries.

c. This theory did not exist before Max Muller's historical accounts.

d. *Encyclopedia Britannica* concludes that, "The study of India is still beset by the *Aryan problem* which often clouds the *genuine search for historical insight* into this period".[11]

e. *Students may further conclude that if sufficient corroborative evidence points to the contrary, the theory MUST be dropped as other old discredited notions have been discarded in the past.*

Encyclopedia Britannica further refers to the current debate of the theory and its refutation in these words, "A major change in the interpretation of Indian history has been a questioning of an older notion[12] of oriental despotism[13] as the determining force providing an intellectual justification of colonialism and imperialism."[14]

Loopholes in the Thesis

Readers may find it fascinating that when untruth or a baseless theory (opinion) is forwarded, several versions are given; each contradicting the others. Facts have only one version.

Let us study these loopholes:[15]

1. On the basis of linguistic similarity between some Latin and Sanskrit words, a conclusion is drawn that the people who created the Vedas belonged to places outside India. So far *the Central Asian linguistic connection between Latin and Sanskrit* has not been provided and explained.
2. A few skulls found in the Caucasus Mountain are considered sufficient evidence to suggest that the Aryans moved from Central Asia. If they came from Caucasus Mountains, then there should not be any talk about Germany, Bactria and Iran as the possible homeland of the Vedic people whose descendants never heard of this debate before Max Muller wrote his version of History.
3. Miraculously, these Aryans brought European language with them, (though they created Vedas in the next couple of centuries in a language very different from Latin and in rhythm patterns unknown to Europeans and Central Asians). Their ancestors back home could not keep any remnant of this culture or language they brought with them. In 1987, Colin Renfrew raised the same question. He said, "How a Kurgan-based expansion of late Neolithic and Bronze Age conquering pastoralists across most of Europe could have left absolutely no corresponding continent-wide horizon in the archeological record?"
4. They were nomads and continued to be so for the duration of their conquests of the natives and yet they created an elaborate class system and Vedic literature. *As mentioned before, Vedas commonly use 26 rhythm schemes and none of the European languages have created such a large number of rhythm schemes.*

5. Their arrival used to be dated to 2500 B.C. In the first part of the last century, it has been post dated to 1500 B.C. and, in some books to 1200 B.C.
6. References in the Vedic literature indicating the habitat and the civilization of Aryans are totally ignored. Perhaps AI theorists were not familiar with the original texts and were unable to find the evidence for this supposition.
7. Astronomical information suggesting the time frame is ignored. It is necessary to check out such references in the literature of those times. It is said that there are some 142 astronomical references in *Mahabharata* alone and most have checked out with the help of the computer software now available to the researchers in this field. Vedic literature details various constellations and refers to eclipses and even though astronomy is a difficult time consuming science, Aryan Invasion Theory should be cross checked with this information.
8. Recent archeological finds are not included to change the *theory*.[16]

A large number of artifacts and remains have been found during the excavations done in the Indus-Sarasvati Basin. The seals, potteries, figurines, fire altars, figures of Mother Goddess, yogic postures of terra-cotta figurines show the common Vedic origin of the civilization in the seven rivers basins.

9. Studies by the Geological Survey of India and glaciologsts showing gaping holes in the theory remain as yet unacknowledged.[17]
10. Evidence contradicting this *theory has been tested by Sat-imaging and by C 14* (a dating method) and yet the indologists have remained stuck in the myth. *It has become the Gospel for these historians and with pride the Gospel is included in every single textbook published in America, and elsewhere in the world too.*
11. Genetic research of DNA has also proved that the Aryan homeland was India.

These new scientific discoveries prove that the early inhabitants did not come from the Central Asian regions but were native to the landmass known as India.[18] "Our bodies are designed for the tropics, however there are ways the body can combat cold." The scientist further explains how the body reacts to subzero temperature and how it defends itself in desert conditions.[19] This point vouches for the fact that early civilizations developed and prospered in the alluvial soil provided by river valleys in the *tropics* – not in the *deserts* of Central Asia, certainly not around the Caucasus Mountains.[20]

According to Dr. Chandrakant Pansé, 'North & South Bharatiyas (the native name for Indians) share Tissue Antigens, distinct from those of Europeans.' He further says, "The stark lack of similarities in the gene pools of the Indian subcontinent and Europe, vividly evident in the mtDNA and the MHC complex, destroys any Aryan invasion notions, and confirms the genetic uniformity of peoples of the Indian subcontinent."[21]

In a recent report, a group of leading international researchers in the field of Genetics pointed out, "Although considerable cultural impact on social hierarchy and language in South Asia is attributable to the arrival of nomadic Central Asian pastoralists, genetic data (mitochondrial and Y chromosomal) have yielded dramatically conflicting inferences on the genetic origins of tribes and castes of South Asia. We found that the influence of Central Asia on the preexisting gene pool was minor."[22] M17 genetic marker has been identified with the so called 'Aryan' gene. It appears in India, Iran, Eurasia and Europe. The interesting fact is that 'this gene has the greatest intensity and diversity in India showing that the Indian population is the oldest.'[23]

Another leading researcher and writer in the field of genetics is Stephen Oppenheimer. By relating the movements and dispersals of people to ecological upheavals, Oppenheimer gives us the genetic history of modern humans correlated with the natural history of our planet. He concludes, "All Europeans living today are descended from South Asians, possibly as recently as 40,000 years ago. South Asia, India in particular, was the jumping off point for the colonization of East Asia, Southeast Asia, Australia and ultimately the Americas."[24]

Students are reminded that when scientific evidence steps in, theories, assumptions and opinions have to bow out. As Einstein points out, "A theory must not contradict empirical evidence."

Dr. Metzenberg, while serving as an arbitrator on the California textbook revision issue said, "I've read the DNA research and there was no Aryan migration. I believe the hard evidence of DNA more than I believe historians."

12. Prior to Max Muller's book, there is no textual reference to this supposed event in any European or Indian texts. None of the eminent visitors such as Megasthenese, Fa-Hien, Hiuen-Tsang or Alberuni mentioned this invasion. Besides these, there is a wealth of Indian literature (not just the literature on Hinduism) belonging to the period before the 19th century which requires investigative studies.

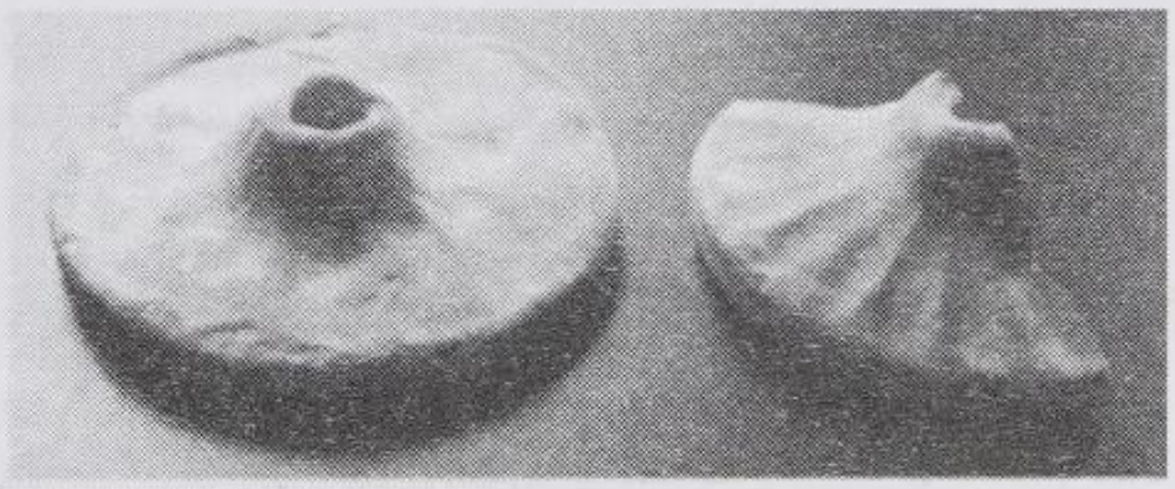
13. The word *Arya* used in the Vedic literature is an adjective and it was also used as a way of addressing a person. *Arya* simply means one who is noble. Indian texts have no mention of *any term denoting race much less it being a language.*
14. Here is an admission of the nonexistence of evidence in the ancient texts (other than the *literature* created by European historians), "but besides the battles recounted in Sanskrit epics there is very little evidence, from archeology, inscriptions or indeed from indigenous tradition, that the language was spread with fire and sword."[25]

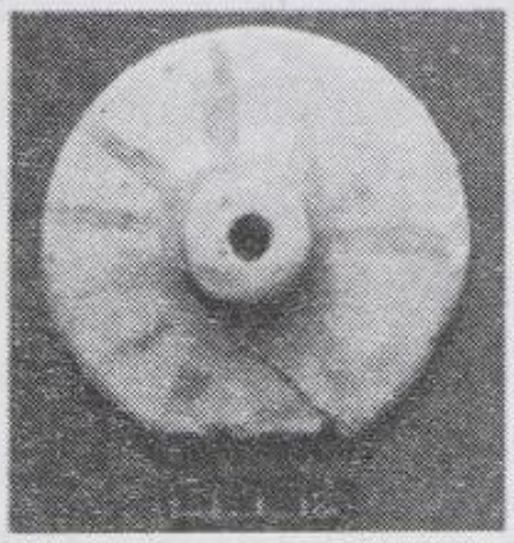
    One glaring flaw in the theory is—if they could do all these wonderful things in India, *how is it that those who were left behind could not make the same achievements in Central Asia?* The theory makes no rational sense but most historians are still committed to it. Conclusions of the genetic studies point to the fact that Aryan is not a race of people but an adjective used for the people who followed righteous conduct.
15. Something needs to be said about the invention of the racial divide between the South Indians and the North Indians—the artifacts found in the Indus-Sarasvati Valley excavations reveal neither a trace of Dravidian place names nor the excavations in the south show any trace of Indus Valley Civilization. Dravidians do not have any tradition of conflict with the speakers of North Indian languages. The South Indian people were aware of the existence of two distinct language groups. As Talageri points out, "That Tamil has the names *Vadamoli* (northern languages) for Sanskrit and *Tenmoli* (southern languages) for ancient Tamil is also significant."[26]
16. The contention that Aryans marched on horse driven chariots itself poses two problems – firstly chariot is the product of urban/industrialized society and secondly, the terrain these mythical nomads are said to have traveled through is/was mountainous.
17. The evidence of archeology, hydrology and radiocarbon dates shows that the Sarasvati dried up around 2,000 B.C. Since there are numerous references to River Sarasvati in the *Rig Veda*, it must have been written at a much earlier date. Again there is no mention of the Aryan invaders anywhere in the Vedas.
18. Fauna and flora described in the *Rig Veda* are native to a tropical climate. They do not belong to deserts or the colder climates of Europe. Elaborating on the fauna and flora of *Rig Vedic* India, Dr. B.B. Lal says, "Let it be squarely stated that the earliest book of the Aryans,

viz. the *Rig Veda* does NOT mention any of the species of cold-climate trees enumerated above. On the other hand, all the trees mentioned in the *Rig Veda*, such as the *Ashvattha* (Ficus religiosa L.), *Khadira* (Acadia catechu Wild.), *Nigrodhas* (Ficus benghalensis L.), do not belong to a cold climate but to a tropical one. Likewise, the *Rig Vedic* fauna, comprising such species as the lion, elephant, peacock, also belong to a tropical climate. Further, during the *Rig Vedic* period the Sarasvati was a mighty river, but it gradually dried up. The evidence of archeology, hydrology and radiocarbon dates shows that the Sarasvati dried up around 2,000 B.C. All this proves that the *Rig Veda* antedated the magic figure. Again, the *Rig Vedic* geography covers the area from the Ganga-Yamuna on the east to the west of the Indus. Likewise, the archeological evidence shows that prior to 2,000 B.C. it was the Harappan Civilization that flourished in this region. Thus, the textual and archeological data combine to establish a perfect spatial-cum-chronological oneness between the *Rig Vedic* and Harappan cultures. And since, as demonstrated in this book, the Harappans were 'the sons of the soil', it squarely follows that *Rig Vedic* people were indigenous."[27]

19. Presence of the horse in I-SVC[28] : B.B. Lal identified horse teeth and bones found by archeologists in Malvan (Gujarat), Kalibangan, Lothal, Ropar, Harappa, and Mohenjodaro. Another archeologist—Bholanath made similar observations about the remains of the horse found in Lothal, Harappa and Mohenjodaro. He certified that they were the remains of the Indian horse. A.K. Sharma identified the remains of the horse found at Surkotada. G.R. Sharma commented that, the skeletons of the horses found in Chambal Valley (Madhya Pradesh) and in Surkotada and Kayatha were domesticated horses.

Religious symbols depict horse and the spoked wheel. "All in all, the case for the horse's physical presence in the Indus-Sarasvati Civilization is quite overwhelming and is bound to be further strengthened by evidence yet to come out of thousands of unexplored sites."





Terra-cotta wheels from Banawali and Rakhigarhi, displaying spokes painted, or in relief[29]
Picture Courtesy:
Michel Danino

Ghosh's respected and authoritative *Encyclopedia of Indian Archaeology* mentions, "In India the ... true horse is reported from the Neolithic levels at Kodekal [dist. Gulbarga of Karnataka] and Hallur [dist. Raichur of Karnataka] and the late Harappa levels at Mohenjodaro and Ropar and at Harappa, Lothal and numerous other sites. … Recently bones of *Equus caballus*[30] have also been reported from the proto-Harappa site of Malvan in Gujarat."

We may now discuss the views of some noted world renowned historians and archeologists on the subject.

B.B. Lal[31] listed four "myths" found in the books about Ancient History:

a) That the Aryans invaded India;
b) That the Harappans were Dravidian-speaking;
c) That the *Rig Vedic* Sarasvati is either a myth or was somewhere in Afghanistan; and
d) The Harappan culture became extinct, obscuring a vision of India's past.

Lal believes that the answers lie in deciphering the Harappan script. All the other evidence points to the fact that Harappan and Vedic culture were the same."

'Should one give up all ethics for promoting one's theory?' This question is asked by B.B. Lal.[32] Another noted historian Shivaji Singh concluded, "Theory was demolished because neither literature nor archeology obliged the proponents of the theory."[33] He further says that, "Though the invasion model was thrown out, somehow it reared its head under the new name-AMT". It too stands rejected because:

a) The proponents of the AMT widely disagree among themselves with the result that several versions of AMT have come into existence which contradict each other.
b) Anthropological, biological and above all genetic findings rule out the possibility of any Aryan migrations.

In this connection, G.P. Singh says, "They (proponents of the AIT) are divided in their opinion regarding the exact location of the said common home, the reason for which is not far to discover. The speakers of Aryan languages have been clubbed together as an Aryan race which never existed as such. The philological and ethnological explanations regarding the identification of an Aryan language with an Aryan race are conflicting. The similarities of a few words do not necessarily constitute a proof of

common origin of their speakers, rather they indicate commingling and sociocultural contacts and fellowship. The theory of a common home of members of so called Aryan family whether in Asia or Europe cannot be accepted merely on the evidence of linguistic paleontology." He also points out, "The Aryan invasion of India is a myth and not the truth. The Aryans were neither invaders nor conquerors. They were not the destroyers of the Harappan civilization but one of its authors."[34]

Bhagwan Singh says, "Contrary to the general belief that the Vedic Society was pastoral and nomadic, we find it to be one of the most civilized societies of its time. The *Rig Veda* is agog with mercantile activities undertaken by its traders against all conceivable odds."[35]

Michel Danino[36] says, "It is, of course, still possible to find genetic studies trying to interpret differences between North and South Indians or higher and lower castes within the invasionist framework, but that is simply because they take it for granted in the first place. None of the nine major studies quoted above lends any support to it, and none proposes to define a demarcation line between tribe and caste. The overall picture emerging from these studies is, first, an unequivocal rejection of a 3,500 B.C. arrival of a 'Caucasoid' or Central Asian gene pool. Just as the imaginary Aryan invasion/migration left no trace in Indian literature, in the archeological and the anthropological record, it is invisible at the genetic level. The agreement between these different fields is remarkable by any standard, and offers hope for a grand synthesis in the near future, which will also integrate agriculture and linguistics.[....] Genetics is a fast-evolving discipline, and the studies quoted above are certainly not the last word; but they have laid the basis for a wholly different perspective of Indian populations, and it is most unlikely that we will have to abandon it to return to the crude racial 19th century fallacies of Aryan invaders and Dravidian autochthons. Neither have any reality in genetic terms, just as they have no reality in archeological or cultural terms. In this sense, genetics is joining other disciplines in helping to clean the cobwebs of colonial historiography. If some have a vested interest in patching together the said cobwebs so they may keep cluttering our history textbooks, they are only delaying the inevitable."

According to J.M. Kenoyer37, "One of the major misconceptions is that invasions of so-called Aryans destroyed the Indus cities and established a totally new culture and language in the subcontinent. It should be noted that most scholars have rejected the invasion hypothesis for the end of the Indus cities because there is no archeological, biological or literary reference to support this theory."

A very recent assessment of the theory, its original purpose and the dangers of the theory is done by BBC (British Broadcasting Corporation). Some excerpts from that assessment are given below:[38]

"This theory, originally devised by F. Max Muller in 1848, traces the history of Hinduism to the invasion of India's indigenous people by lighter skinned Aryans around 1,500 BCE. The theory was reinforced by other research over the next 120 years, and became the accepted history of Hinduism, not only in the West but also in India."

There is now ample evidence to show that Max Muller, and those who followed him, were wrong. Reasons why the theory is no longer accepted: The Aryan invasion theory was based on linguistic and ethnological evidence. Later research has either discredited this evidence, or provided new evidence that combined with the earlier evidence makes other explanations more likely.

Dangers of the Theory

The Aryan invasion theory denies the Indian origin of India's predominant culture, but gives the credit for Indian culture to invaders from elsewhere. It even teaches that some of the most revered books of Hindu scripture are not actually Indian, and it devalues India's culture by portraying it as less ancient than it actually is.

The theory was not just wrong, it included unacceptable racist ideas (my emphasis):

a) It suggested that Indian culture was not a culture in its own right, but a synthesis of elements from other cultures.

b) It implied that Hinduism was not an authentically Indian religion but the result of cultural imperialism

c) It suggested that Indian culture was static, and only changed under outside influences

d) It suggested that the dark-skinned Dravidian people of the South of India had got their faith from light-skinned Aryan invaders.

e) It implied that indigenous people were incapable of creatively developing their faith

f) It suggested that indigenous peoples could only acquire new religious and cultural ideas from other races, by invasion or other processes.

g) It accepted that race is based on biology—implication being that some people/races are inferior to others. It ignored the fact that the concept of race was partly based on ideas about societies. This made it pos-

sible for Europeans to legitimately rank people in a hierarchy and link this hierarchy with the caste system already existing in India.

h) It provided a basis for racism in the imperial context by suggesting that the peoples of Northern India were descended from invaders from Europe and so racially closer to the British Raj.

i) It gave a historical precedent to justify the role and status of the British Raj, who could argue that they were transforming India for the better in the same way that the Aryans had done thousands of years earlier.

j) It downgraded the intellectual status of India and its people by giving a falsely late date to elements of Indian science and culture."[39]

Ever since the theory was advanced, Indian scholars have been rejecting this on several grounds including linguistic evidence. Linguistic evidence was the only thing the AIT theorists had, to begin with.

It is appropriate to quote a few of the earlier opponents of the theory.

'In 1808, a German scholar stated that the people's movement was from the east to the west.'

In 1806, Adelung, another German scholar placed the cradle of mankind in the valley of Kashmir.

Towards the end of the 19th century, Swami Vivekananda[40] – a noted philosopher said, "Our (Eastern) archeologist dreams of India being full of dark eyed aborigines and the bright Aryans came from … Lord knows where." He mentioned all the possible regions sited by the theorists—from Tibet to the North Pole and said, "As for the truth of these theories, there is not one word in our scriptures, not one, to prove that the Aryans ever came from anywhere outside India, and in Ancient India was included Afghanistan. There it ends."

In the beginning of the last century, Aurobindo Ghosh, another noted philosopher said, "The racial identification of supposed Aryans and non-Aryans was just a conjecture supported by other conjectures... a myth of philologists." After studying Sanskrit and Tamil languages, he pointed to a very close and extensive connection between them.

Later in the 20th century, B.R. Ambedkar referring to AIT as 'a perversion of scientific investigation' said that the theory is 'preconceived and facts are selected to prove it.'[41]

More recently, rejection of the assumption that the word *Aryan* denotes *race* from somewhere else and that there was an invasion by that *race* has been pouring in from archeologists and scholars from all over the world. Here are some of the views:

"I can see there is nothing in the hymns of the *Rig Veda* which demonstrates that the Vedic speaking populations were intrusive to the area.... Nothing implies that the Aryans were strangers there." Colin Renfrew[42] said.

A noted historian A.C. Das said, "in the Vedic literature we have a sure and easily accessible basis to go upon, and the materials furnished by it are all compact, which only requires an adequate mental equipment to study for the discovery of historical truths. The task of reconstructing the history of Ancient Aryans on the basis of the researches made in Vedic literature should, therefore, prove far easier of accomplishment than that of writing the ancient history of any other people on the face of the Globe... Such a history if compiled, would moreover be a real history of the Aryan people—the people as they lived, moved, acted, struggled, hoped, thought and advanced step by step, towards progress and enlightenment, thousand of years ago...."[43]

Historian P.T. Srinivasa Iyengar said, "A careful study of the Vedas... reveals the fact that Vedic culture is so redolent of the Indian soil and of the Indian atmosphere that the idea of the non-Indian origin of that culture is absurd." Srinivasa refers to the fauna and flora of the subcontinent mentioned earlier in this chapter.

After years of the study of Indus-Sarasvati Civilization, J.M. Kenoyer, a noted archeologist from the USA concludes thus, "The Dasyus[44] image of the dark skinned savage is only imposed on the Vedic evidence with a considerable amount of text torturing." He also points to the fact that there has been "uncritical and inaccurate reading of the Vedic texts by some scholars."

In view of all the other evidence from the scholars on the subject, it is necessary for the students to recognize the fact that historical events need to be described with reference to all types of evidence. It is also necessary that if the AIT has to be mentioned, then other theories need to be presented for a fair debate and discussion as well.

Other Theories

In particular, various scholars have advanced the following theories:

1. Hindu religion predated 3,000 B.C. This has been proved with the evidence coming from the discovery of submerged cities of the coast of India. This has been discussed in the chapter on chronology and continuity of Indian Civilization.

2. 'Aryan', a Sanskrit word meaning 'noble', does not refer to an invading race at all.
3. The Aryans did not invade but migrated gradually. This point has been conceded even by the diehard adherents of the AIT who now stress that there were several waves of migrating Aryans. This view has also been discredited. If there were migrations, these were from India to Iran and other Central Asian countries.[45]
4. The Aryans were native to the area, or had been there long before the alleged invasion or migration.
5. Hinduism originated solely in India and those who wrote the Vedas lived in India.

Summary

Students may remember that most of the statements that are called facts are actually opinions or guesses based on inadequate information. On the basis of multidisciplinary research, one can conclude that the proponents of the Aryan invasion (or migration) have got both the origin and the direction of movement wrong.

Once the invasionist perspective is dropped there is no need to read racism into the verses of Vedic texts. The colors such as white, black, golden or yellow denote qualities (*Gunas*) of nature, not color of skin. Dasyus are in fact fairer skinned Iranians to the west of the Aryas' land. Ravana, a Sri Lankan was light skinned whereas Rama from North India was dark skinned. The *Rig Veda* describes conflicts among various tribes and kings who were part of the same Vedic milieu. Those who adhered to the *Dharmic* values of the society were addressed as *Aryas* and those who violated these norms were considered *Adharmic* or *Unarya* (and not Dasyus). The links for full articles by researchers rejecting the theory are given in the bibliography. Readers may check these articles and sites for further research.

Concepts to Understand

1. Aryan invasion was a racist theory advanced by the Europeans in the 18th century. For the next three centuries, this became the starting point for narrating Indian history.
2. More and more people have admitted that this was only a theory propagated to justify the rule by imperialist Europe.
3. Even though scientists from various fields of research have negated it, some historians have not dropped the theory.

4. In the light of the empirical evidence, theories have to be dropped.
5. Many historians have shifted from invasion to migration of Aryans. This idea has also been rejected by the geneticists.
6. The term 'Arya' is an adjective in Sanskrit language. Often it is used as a way of addressing someone reverentially. It does not imply a race or a language group.

Questions

1. Truth has one version, when people change the truth, many versions appear and most of these vary by thousands of years, many contradict one another. Discuss
2. When people block out the context of events and refuse to reveal their sources, do you think they are hiding the truth or they do not know anything about facts as they happened?
3. Students may discuss the scenario of supposed migration from Central Asia: five thousand years ago what did the Aryans leave behind? What type of evidence should be demanded from the theorists to make their case believable? The teachers may supply some commonly used words (in Sanskrit and Mesopotamian or of whatever regions to the east of that) so that students can bring a semblance of truth in the theory.
4. The important axiom of theories is—explain and prove it or discard it. Does this axiom apply to the writing of history as well?
5. What are the main grounds for debunking the theory? Students may study the geography of Central Asia and Europe and describe which animals and birds did not exist in these climates and regions. What type of crops cannot be grown in these regions?
6. Students may draw a possible scenario placing the so called Aryans in these regions and create a life-style for these groups in the Arctic. Students may be reminded that neither the frozen top of the earth was any less frigid nor the Central Asian regions less of deserts some 1,500 years ago. Nothing major happened or was recorded in this span to cause life surviving environments to disappear. This may be a group project for the class.
7. "The concept of an IE language family[46] originating in Europe is absolutely critical to the very existence of the West."[47] It is therefore hard to get rid of, and yet it is equally crucial that we do just that – discard it. Write a report based on this quote and point out why for

the last three centuries, it has been crucial to the current framework of history books. Also discuss the possible new framework of the Antiquity of Indian history.

8. Which one of the following developments could have motivated 18th-19th century writers to create mythical theories and distort Indian history? Class conflict, racist domination, establishment of racial superiority of the whites to justify colonialism and glory on the name of the 'white man's burden', and mercantilism.
9. What is the difference between dogma based theory and scientific theory?
10. Students may evaluate the new evidence coming from multiple sources and various fields of study and explain the following:
    a. Why has the theory not been dropped?
    b. Why have the historians not considered other alternatives/explanations about the homeland of the Vedic Aryans?

To build their answer, the students may read the paper by Koenraad Elst, 'Political Aspects of the Aryan Invasion Debate', also 'Linguistic Aspects of the IE Urheimat Question.' Both these articles appeared in the book, *Revisiting Indus-Sarasvati Age and Ancient India* published by World Association of Vedic Studies.

Enrichment Activity

1. In the light of the following report, study the merits of primary sources of history. How do theories affect authenticity of historical accounts?

Retrieving original manuscripts and digitizing those manuscripts – how this will help improve the writing of history of Ancient India:

Archaeological Survey of India has been continuously digging out new evidence of older civilizations on land and off shore. Sometimes archeologists from Europe also join these efforts. Their successes in dating the artifacts have generated enough information to doubt the incontrovertible theory of Aryans as nomadic tribes coming from some place in Central Asia. Whether they came from the moon or Central Asia, it is a theory and what we need to do is to debunk it on the basis of the new evidence surfacing in the last century.

Those who oppose this effort are diehards who tend to forget that history as a correct analysis of events in the light of tenable evidence transcends political agendas, ego and pride about their first thesis. After all, with the new technology, new evidence can be dated more accurately.

2. When you perceive yourself to be imprisoned by the opinions of others about you and your heritage, you are a victim. Freedom comes with power of choice.

"Our ultimate freedom is the right and power to decide the facts we want to know—the present books deny us that. Freedom is what you do with what's been done to you." Jean-Paul Sartre

Students may have a group discussion around the above quote. Why is freedom of choice necessary for the survival of democracy?

3. After studying the following report, students may be encouraged to discuss points which indicate 19th century bias towards people with darker skins. Students may give other examples from different ethnic groups on the basis of their knowledge of the world history.

'The Aryan race was offered as the European answer for *Kabbalah'*. According to Robert Drews (1988)

> "It is an unfortunate coincidence that studies of the Indo-European language community flourished at a time when nationalism, and a tendency to see history in racial terms, was on the rise in Europe. There was no hiding the fact, in the nineteenth century, that most of the world was dominated by Europeans or people of European descent. The easiest explanation for this was that Europeans, or at least most members of the European family, were genetically superior to people of a darker complexion. It was thus a welcome discovery that the ancient Greeks and the Persians were linguistically, and therefore one could assume biologically, "related" to the modern Europeans. The same racial stock, it appeared had been in control of the world since Cyrus conquered Babylon. This stock was obviously the white race. India, it is true, presented a problem, and required a separate explanation. Aryans had invaded India no later than the second millennium B.C., and successfully imposed their language on the aboriginal population, but the Aryan race had evidently become sterile in that southern clime and was eventually submerged by the aboriginal and inferior stock of the subcontinent (Drews 1988, in Livingston 2003, p. 8)."

> "Nevertheless fueled by an obstinate nationalism, Europeans denied their essential absence from history, and *by grossly misrepresenting the facts, artistically created an ancient past, placing themselves far back in time, as far back as the beginning of human history and in the ranks of the great civilizations* (emphasis added, Livingston 2002, p. xi). [48] Such ideas are commonplace even today even though the rhetoric is much milder."

After quoting two very contemporary mainstream scholars McNeil (1986) and Roberts (1995) as examples, Livingston (2002) concludes, "it is difficult to fathom that, *in a society that considers itself as liberal and as morally progressive as our own, modern scholars present ideas as blatantly offensive as these. These theories are not the rabid ravings of neo-Nazi fanatics. These are the purported sober theories of mainstream intellectuals.* However, their claims are no different than the lunacies formerly upheld by Hitler (emphasis added, ibid. p. 16)."

Critical Thinking Activity

1. New evidence is reported in the newspapers. How will you deal with it? Reproduced below is a newspaper report on the subject. The students may read it and discuss if the report is a primary source of history or a secondary one.

Aryan Invasion a Myth

New Delhi, November 23: Former Director General of Archaeological Survey of India (ASI) B.B. Lal on Saturday dubbed the hypothesis of "Aryan invasion of India" a myth. He alleged that it was still accepted for reasons other than historical.

"The theory that there was an Aryan invasion of India is completely wrong," Lal stressed in a seminar in New Delhi and alleged that political reasons were behind its being in the textbooks. The dating of the Vedas to 1,500 B.C. by Max Muller was ad hoc and even he confessed it to his colleagues. Lal claimed and argued that the *Rig Veda* could not be later than 2,000 B.C.

He also discounted the discovery of skeletons at Mohenjodaro site, the basis for hypothesizing an invasion and said, "The hard fact is that these came from various levels, some from the middle and some from the late, and some were found in deposits after the site was abandoned". There were no remains of weapons and material culture of the invaders at the site.

He also came down on those historians who assert that the 'Dravidians' are descendants of Harappans who dispersed after the 'Aryan invasion'. None of the four southern states of Tamil Nadu, Andhra Pradesh, Karnataka and Kerala has any Harappan sites, but they have sites of Neolithic culture.' Lal said. "Do the proponents of this theory expect us to believe that urban Harappans, on being sent away to South India, shed overnight their urban characteristics and took to a stone age way of living?" asks Lal.[49]

Readers may note that even in the beginning of the 19th century there were linguists and scientists who did not endorse Aryans as a race or a linguistic group as the ancestors of Vedic Indians.

Reformulation of Indian History without the AIT/AMT

It will mean predating origin of the Vedic Age. This will change the context of the origin and evolution of major civilizations of the world. It will also require dropping or post dating some of the key events of world history. This is a formidable challenge involving a fresh approach and a great deal of research. Instead of dealing with this challenge or rebutting the proof, many historians find it convenient to ignore the new evidence. Some historians even resort to dubbing the researchers as Indian nationalists. Personalities or nationalities of the researchers are not the issue here, hard evidence from multiple sources is. Edmund Leach was not a Hindu nationalist. Neither are Jim Shaffer and Diane Lichtenstein and a large number of scholars who have refuted the theory in the past 100 years or so.

One can easily conclude that *nationality* of the writer is not a part of the debate. Students may refer to the fact that books written about the western civilizations do not require that the authors/researchers/historians declare their nationality. Facts and primary sources alone should lead students and if in the process, older theories have to be discarded, so be it. Many theories were dropped in the realm of science by far greater eminences without a demur!

Endnotes

[1] Map of *Sapta Sindhu* (Nation of Seven Rivers), source: Theatre of Pan~cajana_h,Five Peoples, Marius Fontane, 1881, *Histoire Universelle, Inde Vedique* (de 1800 a 800 av. J.C.), Alphonse Lemerre, Editeur, Paris

[2] Readers may refer to section 2, chapter 6 for more details about the Sarasvati River

[3] Philology is the science of languages

[4] People teaching various aspects of Indian Studies refer to themselves as Indologists.

[5] There are several candidates for the original homeland of these nomads – Bactria, Mesopotamia, Sumeria, Assyria, Iran and Caucasus mountains. Students will feel less confused when the compilers of history reach a consensus as to the date and the place. That seems not possible—everyone is entitled to his own guesswork and opinions. Since the last quarter of the 19th century, Germany became the most favored country as the original homeland of Aryans.

[6] Indra in the Vedic Hymns symbolizes divine consciousness and is considered *Deva* of the cloud system. *Vritra* symbolizes negative forces. *Indra* and *Vritra* are discussed in the chapter on Hinduism.

[7] Will Durant, *The Story of Civilization*, vol.1

[8] *Encyclopedia Britannica* (EB), 2003 ed., vol 21, pp. 28-40

[9] EB vol. 21, p. 37.

[10] EB vol. 21, p. 35

[11] Ibid. p. 40

[12] EB vol. 21, p. 37

[13] Despotism is autocratic, ruthless rule by a person or a group.

[14] EB vol. 21, p. 35. EB uses the words hypothesis. Use of the word 'probably' this or that suggests conjectures and speculation on the part of writers.

[15] For an in-depth study of these contradictions and loopholes in the Aryan theory, refer to: *Myth of the Aryan Invasion* by David Frawley; also, *In search of the Cradle of Civilization* by Subhash Kak, David Frawley, Feuerstein; *The Invasion That Never Was* by Michel Danino; *Hinduism - A Short History* by K. Klostermaire

[16] Koenraad Elst articles – 'Political Aspects of the Aryan Invasion Debate', also 'Linguist Aspects of the IE Urheimat Question'. Both articles appeared in the book- *Revisiting Indus-Sarasvati Age and Ancient India* published by World Association of Vedic Studies.

[17] 'Sarasvati River Civilization', S. Kalyanaraman, *Revisiting Indus-Sarasvati Age and Ancient India,*WAVES Publication

[18] For enrichment, one can read N.S. Rajaram's recent articles published on the subject. History in our genes— Aryan Invasion/Migration WRONG; "Recent findings in population genetics overturn long-held theories"

[19] Refer to, *Surviving the Extremes* by Kenneth Kamler

[20] *Out of Eden: The Peopling of the World* by Stephen Oppenheimer (2002). Constable, London. Also check Oppenheimer's genetic map - Mainly quotes from Stephen Oppenheimer's latest book, *The Real Eve.* Link: http://www.bradshawfoundation.com/journey/

[21] 'DNA, genetics and population dynamics: debunking the Aryan invasion propaganda' by Chandrakant Pansé, Professor of Biotechnology Newton, Massachusetts. He presented this paper at the Third Annual Human Empowerment Conference at Houston, Texas [between Sept. 16 to 18, 2005]

[22] Refer to:'Polarity and Temporality of High-Resolution Y-Chromosome Distributions in India: Identify Both Indigenous and Exogenous Expansions and Reveal Minor Genetic Influence of Central Asian Pastoralists', on joint research by the international team of scholars from various disciplines led by Sanghamitra Sengupta et al, published, *American Journal of Human Genetics*, February 2006; 78(2). To read about the team members, review the bibliography. The article is quoted in, 'Genetics and the Aryan Debate' by Michel Danino published electronically in *Archaeology Online*, 2005.
Link: http://www.archaeologyonline.net/artifacts/genetics-aryan-debate.html

[23] Refer to, *Genetics and the Aryan Debate* by Michel Danino

[24] Refer to, *Out of Eden – The Peopling of the World* by Stephen Oppenheimer

[25] Oslter, Nicholas (2005), *Empires of the Word: A Language History of the World*, Harper Collins Publishers Inc.

[26] S.G.Talageri, *The Aryan Invasion Theory: A Reappraisal*

[27] *The Homeland of the Aryans, Evidence of Rigvedic Flora and Fauna and Archaeology* by B.B. Lal, Aryan Books International, Delhi, pp. 85-88.

[28] Refer to, *The Horse and the Aryan Debate* by Michel Danino Published in the *Journal of Indian History and Cultures* of the C.P. Ramaswami Aiyer Institute of Indological Research, Chennai, Sept, 2006, no. 13, pp. 33-59

[29] Source for the picture: *The Horse and the Aryan Debate*

[30] Biological name for the species

[31] B.B.Lal is a former ASI director general, the above excerpts are from his lecture at Bhopal titled "Why perpetuate myths? A fresh look at Ancient Indian History".

[32] *The Homeland of the Aryans, Evidence of Rigvedic Flora and Fauna and Archaeology* by B.B. Lal

[33] Excerpts from his presidential address in the 2006 conference of Akhil Bhartiya Itihasa Sankalana Yojana (All India Historical Research Plan) at Kurukshetra, India, Prof. Shivaji Singh is retired professor of History from Gorakhpur University.

[34] G.P. Singh, *Facets of Ancient Indian History and Culture*

[35] Quote from, *Trade and Commerce in the Vedic Age*

[36] Refer to, excerpts from the concluding paragraph of the paper- 'Genetics and the Aryan Debate' by Michel Danino, Publication: *Puratattva*, Bulletin of the Indian Archaeological Society, New Delhi, No.36, 2005-06. The paper discusses several genetic studies to arrive at this conclusion.

[37] J.M. Kenoyer, *Ancient Cities of the Indus Valley Civilization*, Oxford University Press, 1998

[38] The story appeared at this link: http://www.bbc.co.uk/religion/religions/hinduism/history/index.shtml<http://www.bbc.co.uk/religion/religions/hinduism/history/history5.shtml. The article is still there on BBC. Here is the new link : http://www.bbc.co.uk/religion/religions/hinduism/history/history_4.shtml

[39] BBC – 10.05 posted on IC @yahoo.com http://www.bbc.co.uk/religion/religions/hinduism/history/index.shtml<http://www.bbc.co.uk/religion/religions/hinduism/history/history5.shtml

[40] Swami Vivekananda was the first Indian to address the Conference of Religions held in Chicago in 1893

[41] Students may note that Ambedkar was himself from a lower caste. He was the most prominent person in the constitutional assembly that prepared the Indian constitution. His role in the writing of the Indian constitution was the same as that of James Madison in the writing of the American Constitution.

[42] Colin Renfrew – a British archeologist, check bibliography about this work
[43] Quoted by G.P. Singh in *Facets of Ancient Indian History and Culture*
[44] Dasyu is the Sanskrit word for a servant or household help.
[45] Discussed in the chapter on Vedic People
[46] Students may refer to the book, *Indus Age: Writing System* by Gregory Possehl.
[47] Livingston, David (2002), *The Dying God: The Hidden History of the Western Civilization*, New York: Writers Club Press.
[48] Ibid. Robert Drews' comments and McNeil's views are quoted in the same
[49] Refer to excerpts from the article by S. Kathoroli which appeared in the vol. 60, 2002, *Geological Society of India*

Chapter 9

The Vedic Age

(4600[1] B.C. – 1900 B.C.)

There are five phases of the Vedic Age:

- *Rig Vedic* Age,
- Indus-Sarasvati Civilization,
- The Age of Epics,
- The industrially advanced phase of the Vedic Age,
- The disappearance of Sarasvati River and the rise of new seats of political and economic activities.

In this chapter, we will discuss the *Rig Vedic* Age and its various aspects which shed light on the geography and history of the earliest times. The *Rig Veda* is the beginning of record keeping because it tells us about the religious, social, political and economic life of the Vedic communities.

Sarasvati River

The gradual desiccation of the river by 1900 B.C. tells us the story of the rise and decline of the Indus-Sarasvati Civilization.

Time frame: Scientists from different fields of knowledge now generally agree about the time frame of what we call the Vedic age. Vedas and especially the *Rig Veda* is still one of the most important sources of this new chronology. Geologists, ecologists and archeologists have also reached similar conclusions. Scientists involved in imaging the river beds and the scientists doing the radio carbon dating of the finds also agree with the new time frame.

According to the conservative estimate made by historians, the time frame of these early kingdoms was around 4500 B.C. This estimate is based on the references to the prominence of the river Sarasvati in the Vedic

hymns, astronomical references to the times of equinoxes and solstices (which occurred much later in those times) and the archeological finds from the dried up bed of Sarasvati River. When all of the evidence emerging from different disciplines/sources is evaluated and accounted for, the hitherto accepted ***chronology*** which is at best arbitrary and speculative will have to be further readjusted.

Many scholars believe that the Vedas came as early as 6,500 B.C. However conservative dating of the beginning of the Vedic age is 4,600 B.C. Most scholars in the past five decades also agree that the Vedic age began in India. Despite the fact that some historians still stick to their conjectures, there has been a fundamental change in the way Ancient Indian history is now being studied. As Rajaram says, "Qualitative methods based on linguistics and social political theories—such as migration and nomadism—are progressively giving way to more scientific methods based on natural sciences and technology. At the most fundamental level, the crucial role of ecology in the rise and fall of civilizations is now getting better understood."[2]

Using all these sources, this chapter will explain and analyze the major events and their sequence shaping India's ancient past. Several scholars in the past decade or so have used *Rig Veda* as a source of history. Their conclusions are incorporated in this chapter.

The Vedas are considered to be the most ancient literary records of mankind. As ancient visionaries and sages composed prayers and expressed awe over their observations of the mysterious nature, the Vedic poetry in emerged in many intricate rhythm schemes. This poetic vision of the sages has been passed on through oral narration from one generation of people to the next. This is known as *Shruti*. Later on, much of this poetry was compiled and written and this is referred to as *Smriti*. Vedic hymns were arranged and compiled by sage Veda Vyasa after the *Mahabharata* war some five thousands years ago.

Besides the Vedas, there is a monumental literature in the form of *Dharma Sastras*, *Ramayana* and *Mahabharata*, *Sutras, Vedanga*, *Upanisadas* and the commentaries by later interpreters of these works. Puranas are another valuable source of history. The Puranas are voluminous works which contain genealogies of kings, history, legends and morals. While using the Puranas for compiling history, one has to carefully separate the line between facts and legends and use other primary sources to corroborate the Puranic stories (*Gathas*).

Vedic Literature

The early medium of expression and communication was the Sanskrit language, which is the oldest language in the world. Later as the Vedic people spread to other parts of the world, their language went with them and as a result, many other languages were affected by interaction between people. As explained in the chapter on 'The Origin of Civilization', besides Sanskrit, there were a large number of dialects which were used in different regions of the subcontinent. Also, as other Indo-Dravidian languages developed, these languages became the way of exchanging ideas. There are four Vedas, considered to be the books of wisdom. These are:

1. *Rig Veda* – most of the hymns are in praise of God and the forces of nature, invoking their blessings.
2. *Yajur Veda* – deals with ceremonial aspects appropriate for different times of life and different roles in life.
3. *Sama Veda* – music and melodies. Compositions are in mathematical notations.
4. *Atharva Veda* – Rules regarding economic, political and social institutions. This Veda also provides a framework for various organizations.

Many verses of the *Atharva Veda* discuss the limits on the monarchs and the freedom of subjects in getting rid of a corrupt or a despotic king. The *Rig Veda* is composed in verse and is arranged in *Mandalas* (volumes), *Suktas* (hymns) and *mantras* (verses). The *Rig Veda* has four parts – *Samhitas*, *Brahmanas*, *Arnayikaas* and *Upanisadas*—the first one contains hymns, sacrificial ceremonies (called *Yajnas*) and prayers. The second part explains the significance of these ceremonies and prayers. The third part contains texts for meditation and helping people in their quest for spirituality. The last section known as *Vedanta* is the essence of Vedic philosophy.

Most people have considered Vedas only as religious texts. Some others have thought of these as cultural documents. Scholars now agree that aside from their great spiritual, ethical and philosophical merit, the Vedas depict the life of the Vedic people providing a picture of their social, economic, political and religious life.

R.S. Aiyer refers to the, "misconception that Indians are great in philosophy but not in material science and the Vedas written in Sanskrit are spiritual and are for religious rituals. This book (referring to Vedas) clearly shows that behind superficial meanings, there lie latent scientific postulates based on systematic observations and correlation of countless sages and scholars."

Vedas are the earliest accounts of the geography of the Indian subcontinent. Valuable information about the ecology, climate, fauna and flora is also found in the Vedas. Therefore, these books are a primary source of early Indian history, in fact early history of all mankind.

Location

There are different views about the location of the early Vedic kingdoms. One theory places these kingdoms in the north/northwest of India including parts of Afghanistan and Iran. Others place these in areas around the river Sarayu in the east extending west/northwest to the Indus-Sarasvati basin and beyond. At present these areas are known as Pakistan, Kashmir and Afghanistan. Vedic verses reflect great reverence for the Himalayas, Sindhu and Sarasvati rivers. It was a long held notion that the seat of the Vedic people was *Sapta Saindhava* region. More extensive studies of *Rigveda* and the archeological finds in Bihar and Uttar Pradesh indicate that "there were several centers or seats of their original dwelling in India itself of which the Ariana region, the *Sapta Sindhu* region, the Sarasvata region and the Ganga Yamuna Doab were the most important. It will not be reasonable to single out a particular place as their original homeland."[3]

Based on archeological and linguistic evidence, Vedic influences are to be seen in places as far away as Vietnam, China, Laos, Burma, Bali, Thailand and Cambodia. If the evidence points out to not just one location, then one can safely consider the existence and spread of Vedic kingdoms all over the South and the Southeast Asia. In a later chapter, the architectural similarities will be discussed to prove the impact and extent of Vedic India in the Asian continent.

The Kings and the Royal Dynasties of Vedic Times

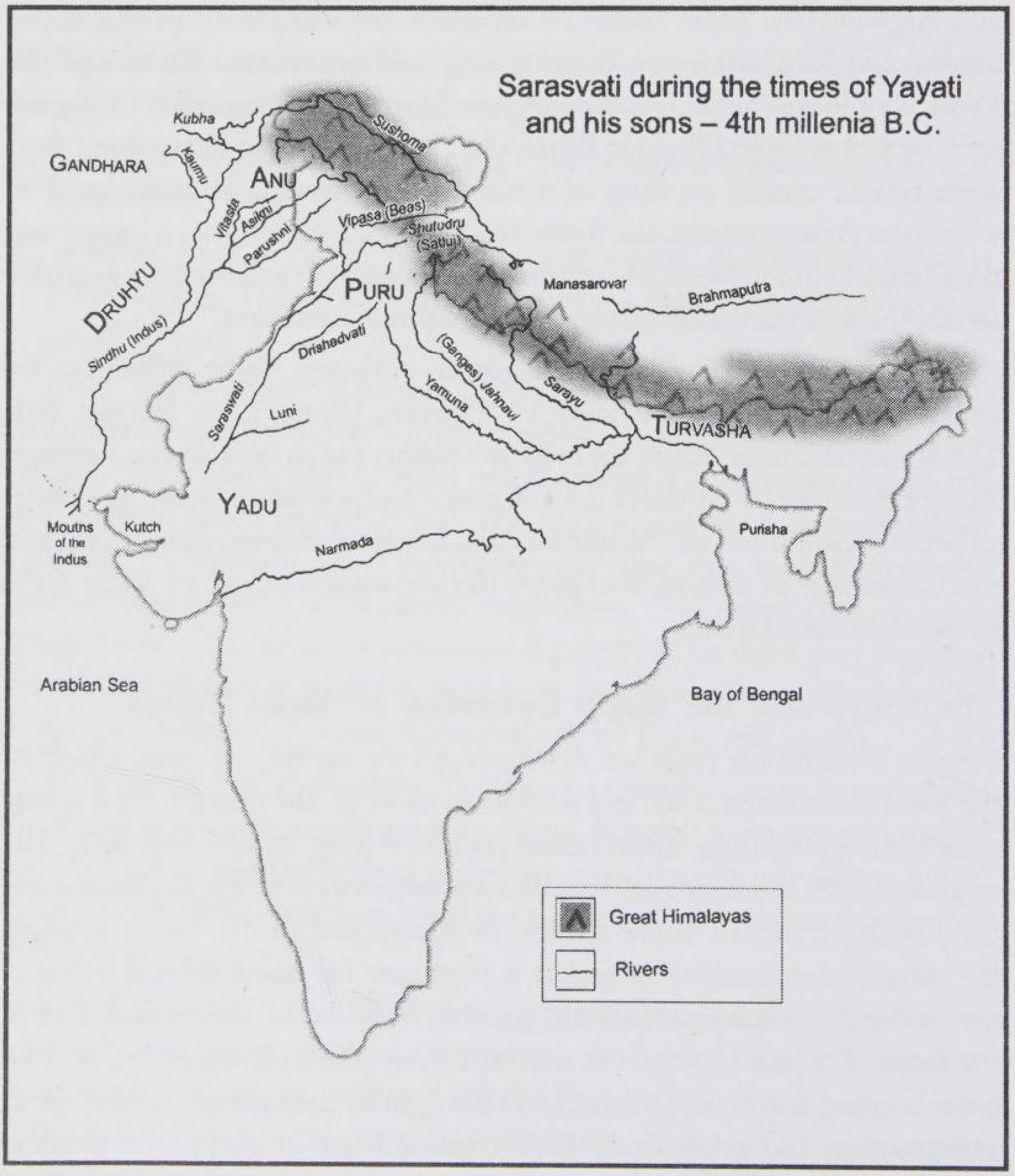
History is based on evidence that survived the ravages of time. Much of the literary evidence could not survive as most of the centers for learning were destroyed during natural disasters and during various invasions. The early accounts of kings and dynasties are mentioned in the *Brahmanas* and the *Puranas*. Many of those names are mentioned in the Vedas detailing the wars among some of them. It is fortunate for mankind that some of the earlier historical accounts did survive. India saved the records first in the form of *Shruti* and then as a compilation. The references can now be corroborated and cross referenced in the light of archeological, geological, astronomical and other finds. New methodology of dating the artifacts can help us in dating the Vedic age. In this respect, Central Asian civilizations were not as lucky.

Svayambhu Manu is mentioned as the first man. It is likely that the name—Adam of European myths came from the word—Adi Manu.

There are five dynasties which are being traced from Vaivasvat Manu. Vaivasvat Manu had five children Ila, a daughter, and four sons Pururavas, Ayus, Nahusha and Yayati.

Yayati had five sons, Turvasha, Yadu, Puru, Druhyu and Anu who started the dynasties in various parts of northern India spreading up to the Vindhyachal Mountains.

The following map shows the regions of each dynasty:



The students may note that the Druhyus were occupying the area west of the river Indus, which is now Pakistan. Kings of the Puru Dynasty were ruling the area between Sarasvati and Jhelum rivers, Anus were in the Kashmir Valley and Yadus were in Gujarat, Maharashtra and Sindh regions. Turvashas occupied vast regions in Central and Eastern parts of Indian subcontinent. Besides these kingdoms, there were several Vedic kingdoms in the area now known as Afghanistan. The *Rig Veda* mentions several rivers of that area. In later texts such as *Atharva Veda*, there is a mention of Balhika and Gandhara—both west of the Indus River.

It may be noted that many names later became synonyms with the word man, for example, the words *Purusha, Nahusha, Manusha* and *Ayus*, all mean man. This proves that traditionally, these rulers mentioned above are considered early kings. Pururavas in *Mahabharata* is considered as the ancestor of Dushyanta—a Lunar dynasty king hence, he may be deemed to be an early king from the lunar (later known as Kuru) dynasty. Arjuna was the descendant of Pururavas; Krishna was the descendant of Yadus. The Zoroastrians remember having lived in India before migrating to Persia.

Another dynasty started by Manu through Iksvaku is known as *Suryavamsi* (Solar Dynasty). King Sagar, Bhagiratha and Rama were a few of the notable kings from the Suryavamsi dynasty. In the early times, many sages were advisors and spiritual guides of the kings. These advisors were known as *Purohitas*. Vasishtha was the *Purohit* (also a family guide) – advisor to the kings from the Solar dynasty. For greater details of the genealogies and the dynastic rule, contributions of the sages towards the well-being of the kingdoms and the cultural achievements of India under different rulers, students may study the Puranas.[4]

All these kingdoms and dynasties ruled in their own small areas. These rulers though not a part of an empire had cultural unity. They considered themselves to be a part of the geographic entity called *Bharatvarsh* (earlier known as *Aryavrata*). They maintained peaceful relations through marital alliances but often some ambitious king would dream of becoming the emperor of the whole region. The intent was to get his status of supremacy accepted peacefully. Through the *Yajnas*[5] – *Ashvamedha Yajna* and *Rajsuya yajna*[6] in particular and sometimes through wars, the boundaries of the kingdoms were extended and the kings declared themselves as *Chakravartin* (emperors) kings. Such a king would control a kingdom as large as most of Europe. [Compare the maps of Europe with the maps of ancient India (which was the entire subcontinent at that time)] to estimate the size of the then India.

Conflicts and Warfare

It does not mean that there were no wars or conflicts in the ancient times. Often, there were wars between those who followed *Vedic Dharma* and those who did not. In earlier times, a king by the name of Mandhata defeated Druhyus of the northwest and drove them to central Asian regions. Another war drove Druhyus to Western Asia.

The Battle of Ten Kings (known as Dasharajna War)

Sudas, the king of a vast region between Rivers Sarasvati, Drishadvati[7] and Yamuna was a follower of the famous Vedic Seers—Vasishtha and Vishvamitra. Ten kings from the kingdoms of the west and northwest lead by Druhyus challenged Sudas. Sudas defeated these kings at the battle of Kurukshetra. In another battle near Mathura, he also defeated Turvashas from the east. This war is considered a major event of Rig Vedic period.

Many of the defeated people migrated west. Prithus went west and established the empire in Iran. They were known as *Parthavas* (a Sanskrit word) or Parthians. Alinas went to the areas near Greece and Parsus became the Persians. Other opponents of Sudas were Pakhtas and Balhanas. Readers may note language affinities between these names. Such an affinity shows interaction between the *Rig Vedic* people settled in various regions of the subcontinent. All these people shared common early history. The Pakthoons of Afghanistan and Balochis of Baluchistan are the descendants of those people.

This brings out an interesting point – there were migrations of people from the subcontinent of India. Similarity of languages, myths and customs of several East Asian and Middle Eastern countries testify to their common remote past in the Indian subcontinent.

Dispersal of People Across the Subcontinent and Abroad

Westward Flight of Druhyus

Many scholars believe that the present day population of Druze in Lebanon and other countries of the Middle East migrated after the wars—mainly Mandhata's and Suda's wars.

Are Druzes the Descendents of the Druhyus from India?

Writing about Druze (Druhyus), Hussam Timani[8] says, "A great deal of their scriptures is from Indian philosophy like reincarnation. Also, in the 1950s one of their leaders, who made frequent trips to India, brought with

him from India a manuscript in Arabic that was lost and was found in India."

"The Druzes have a distinct set of beliefs and practices, and their scripture, *kutub al-hikma* (wisdom books), is a collection of epistles and correspondence between luminaries. The influence of the Qur'an and Greek and Indian philosophy is apparent in the Druze scripture and faith. For instance, the Druze 'discipline integrated elements of the neo-Platonic Greek philosophy of presenting God as transcendent, beyond human conception,"[9] and the Hindu notion of metempsychosis. Among the Druze scriptures, which are composed of epistles between luminaries, is a collection called the *Epistles of India*, suggesting that some of these luminaries had visited India. Based on these philosophies, the Druzes explain their worldview of the absolute, the human attitude towards nature, and life after death."[10]

In fact, "The third article of faith is the belief in reincarnation, the transmigration of the soul."[11] They also revere their sages. "The Druze sages detach themselves from all worldly desires, meditate most of the time, some practice celibacy, and dedicate their lives to worshipping God. They are constantly reading the scripture and strictly follow its teachings and guidance."[12] In these sages, the people see and feel the presence of the divine power.

With this information we are not sure if the Druzes are the descendents of the Druhyus from India. More hard evidence will be needed to establish this. Some other groups who moved from the northwest were Panis, Bisyas and Parthavas. Parthavas who moved to Iran (then known as Parthia or Persia) shared a similarity of language and belief and customs. As G.P. Singh says, "The historic relationship of the Parsis and the *Rig Vedic* Aryans can fairly be attested to by the affinities in their languages, and their common religious beliefs and practices, customs and traditions. The Parsis worshipped the Vedic divinities and followed the Vedic system until they embraced a new religion popularly known as Zoroastrianism." After being persecuted in the 7th century, they came back to India where they found a safe haven.

Many people gradually moved towards the East as a result of the global drought of around 2,200-1,900 B.C. This drought as well as the desiccation of the rivers Sarasvati and Drishadvati created the Thar Desert and forced many people to abandon their once flourishing towns.

Religious Life

Vedic texts are an important source of information about the religious life of the Vedic people. Whether in the *Sapta Saindhava* basin or in the Gangetic valley, an important part of their life was to celebrate life through *Yajna* ceremonies, offer daily prayers to nature and harmonize the inner self with the natural environment and the society. Besides offering prayers to the Creator, they offered prayers to the natural forces, sun, moon and other planets whom they referred to as *Devas*.[13] They were worshippers of the female aspects of the Divine. All of these beliefs and practices form an essential part of Hindu *Dharma* as practiced today.

Music

Since the remote past, Indians have been fond of poetry, music and dancing. *Sama Veda* is the first book of musicology, which gives seven notes in a scale and three octaves. For each of the seven notes, there is a name. Except for the fifth and the first note, for the rest of the five, there are sharp as well as flat notes. Each of the Vedic hymns, follow specific metre using, three notes—starting from *Madhyam* (middle) down to *Gandhaar* and *Rishabh*. In western musicology, these notes would be *fa, mi* and *re*.

However, most of the *ragas* use five or more notes and artists improvise all the time. Music for the Vedic people was a way to build spiritual connection. Besides vocal music, several instruments invented by the Vedic people were used as accompaniment. Tabor, *mridangam, veena, been* and flute, were the first instruments known to mankind.[14]

Social and Political life[15]

Complexity of Society and the Emergence of Specialized Professions

The society even in that remote past had a semblance of order and it was organized along specific occupations. Vedic society had many specialized professions. One of the hymns in *Yajur Veda* lists a variety of secular professions. "The professions include dancer, courtier, comedian, judge, wainwright, carpenter, potter, craftsman, jeweler, bowmaker, ropemaker, dog-rearer, gambler, hunter, fisherman, physician, astronomer (*naksatra-darsa*), philosopher, moral law questioner. Further are listed elephant-keeper, horse-keeper, cowherd, shepherd, goatherd, ploughman, distiller, watchman, and the wealthy. Further still, wood-gatherer, wood-carver, water-sprinkler, washer-woman and dyer, servant, courier, snob,

pharmacist, fisherman, tank-keeper, cleaner of riverbeds, boatman, goldsmith, merchant, and a rhetorician; a cow slaughterer, speaker, lute-player, forest-guard, a flutist; a prostitute, watchman, musician, hand-clapper. A listing of such diverse professions can only reflect a corresponding complexity in social organization, which would be characterized by different kinds of dwellings."[16]

Political life—Monarchy and Democracy

During the Vedic times, there were powerful kingdoms and dynasties. People expected the highest conduct from their kings and heroes. The message of the following lines of this Yajurvedic prayer[17] is obvious. Whatever we expect from a powerful man/leader/or a hero, those qualities are mentioned here:

"You are the fiery spirit give me the fiery spirit,
You are vigor, give me manly vigor.
You are power, give me power,
You are energy, give me energy,
You are battle fury, give me battle fury,
You are conquering might, give me conquering might."

High moral ground held by the monarch or the leader is supposed to inspire the people. The ethical standards and people's expectation of the king's adherence to these standards are the real foundations of democracy. The source of power are the people.

Another verse from the Vedas makes it clearer:

"In us be your power,
In us is your valor, your wisdom, In us be your mental splendors,
Bow your head to mother earth,
This is your sovereignty
You are the controller,
Ruler you are steady, firm.
You are culture and land.
You are for peace, you are for wealth, and you are for nurturing us." [18]

This section traces the evolution of civic system and democracy in Ancient India through Vedic and post-Vedic period. The principles and guidelines laid down in *Atharva Veda* were further analyzed, expanded and defined in the next millennia. The contributions of the successive writers

of *Dharma Sastras* are also incorporated in this section to give students an overall picture.

Are the democratic concepts of governing well documented in Vedas?

The answer is yes.

Based on some quotes from the Vedas given below, we can make an outline of the salient points of democracy in the Vedic period:

Here is a quote from *Atharva Veda*[19]:

"Let the subjects (*Praja*) choose you as their leader (King)—the King is selected by the people."

At the time of coronation (*raajyaabhisheka*) the King promises to his people—the Praja as follows[20]:

"I will remain in this nation's assembly and become worthy of its confidence."

It is just like an acceptance speech at the Presidential oath ceremony. The King vows to protect the people with the help of his court members. Atri Rishi and many other *Rishis* were the proponents of democratic kingdoms.[21]

These words occur in the ancient Indian texts and the Vedas. Democratic institutions are shaped by the spirit of tolerance and freedom of thought. *A unique feature of Hindu practices is that while Hindus worship God and call Him by different names at the same time they revere everyone else's understanding of God as well.* This is the foundation of secularism and democracy. It is this foundation which limited the authority of the kings.

The discussion of democratic institutions in ancient India means covering of the time frame of about 6,500 years of known history. It also means that the codes and rules in general usage unified India from the ancient times despite the existence of various kingdoms. *Dharma* and culture were and have continued to be the unifying factors in the subcontinent.

The codified laws were given in the *Smritis*. "The *Smriti* of Yajnavalkya gives a list of twenty sages as lawgivers, 'Manu, Atri, Vishnu, Harita, Yajnavalkya, Usanas, Angiras, Yama, Apastamba, Samvarta, Katyayana, Brhaspati, Parashar, Vyasa, Sankha, Likhita, Daksha, Gautama, Satatapa and Vasishtha, these are the propounders of the *Dharma Sastras*'."

The tradition of codification continued all through the Vedic and post-Vedic period. Documents such as Chanakya's *Artha Sastra* written during Chandragupta Maurya's rule (around 320 B.C.) and *Todarananda* written by Todarmal during the period of Akbar (16th century) reveal continuation of that tradition.

Legislature

Laws were made, interpreted and analyzed by the universities and followed by the kings. From time to time, these laws were also examined by various seers and commentaries written about them. There is no evidence of general acceptance of despotic kings or of Divine rights of kings. Such autocratic kings were vanquished and the original political values reestablished. *Dharma*—righteous conduct was the law of the land. For small aberrations like inability to keep a promise, many famous kings were dethroned. Many despotic kings such as Ravana, Kansa, and Duryodhana etc. were defeated and replaced by the Kings who followed *Rajya Dharma* (royal duties).

Administration

There was a separation between the religious institutions and the state. Besides a Brahmin priest, there were advisors from other different *Varnas* to help kings run the administration. Many of the advisors were elected. The general public had an access to the king.

Judiciary

The set up of Judiciary:

The King's court was presided over by the Chief Judge who dispensed justice with the help of the counselors and the assessors. There were three other courts of a popular character called Puga, Sreni and Kula. These were not constituted by the King. They were not, private or arbitration courts but were *people's tribunals.* These tribunals were part of the regular administration of justice and their authority was fully recognized.[22]

Institutional Framework

The *Ganarajya* or *Janaraj* meant that the advisors were elected from the local citizens for the kingdom and made up the *Rajya Sabha* – king's assembly. At the local levels, there were councils, committees and tribunals. In the rural areas, there were five elected heads looking after the safety of the villagers, settling disputes, ensuring harmony and supervising the usage of correct weights. This Panchayat System has been prevailing till today. Republican practices and monarchy existed simultaneously.

Several millennia later, in order for the country to run smoothly Chanakya[23] created a network of administrators. Some of them were in charge of espionage to inform the king about the will and opinions of the people. Chanakya had no respect for an autocratic king.

He believed that an autocrat weakens the country because he loses people's support.

Secondly he creates anarchy. He wrote, "It is better not have any government than to have one of a bad ruler."[24] Readers will read more about him in a later chapter—how he replaced autocratic Nanda ruler with a more worthy successor.

Literary evidence suggests that there has been workable administration at the local levels.

Under the Panchayat System, there was *Gramani*—chief official at the village level.

A collection of many villages (*gramas*) became a *Jana*. A unit in between was a small state with a head more like a governor called *Vispatut*[25] .

The *Rig Vedic* expressions like *Sabha*, *Samiti*, *Samraat*, *Rajan*, *Rajaka*, which indicate the existence of organized assemblies and rulers of different ranks, are relevant not to the nomadic invaders, but to the advanced urban society of the Vedic Aryans who were indigenous inhabitants of the Harappan settlements.

Thus, Vedic and post-Vedic texts laid down the foundations of secular government and grass root democracy—several millennia before these concepts were coined by Europe—but not practiced till the 20th century.

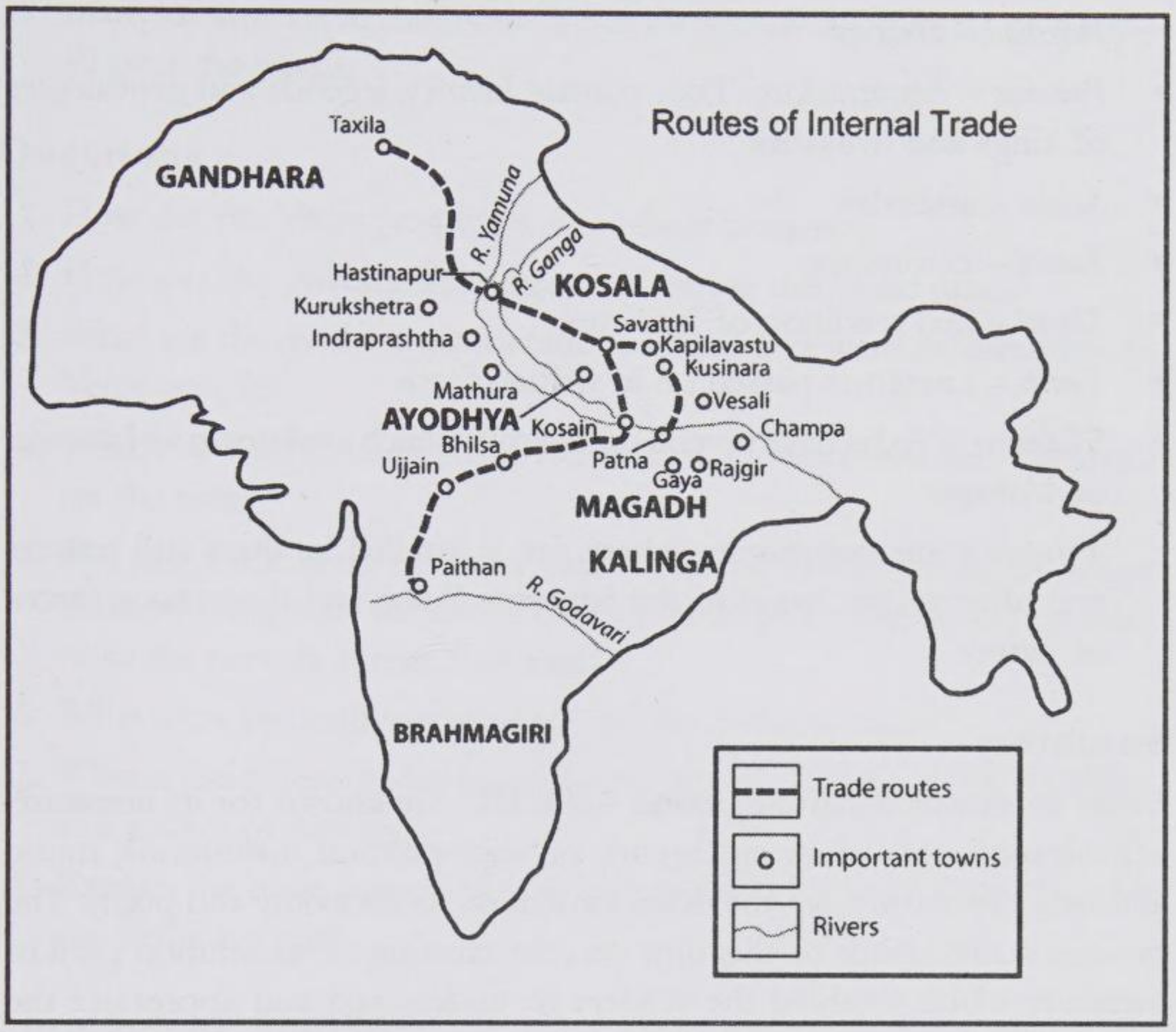
Economic Life

Vedic people lived in an agricultural environment. In the Vedas there is no mention of taxes levied on people. Epics have a large section devoted to discussion of fair (just) taxes and *Raj Dharma*.

People in the western part of India had cottage industries. The potters, the brick-makers, the jewelry makers, and the metal smiths were all there because those items of intricate designs have surfaced at various sites of exploration in the northwest. Trade was a major occupation. Agricultural regions grew cotton, wheat, barley and rice which were exchanged with other goods. During the last few years, evidence of agricultural and other crafts has been found in Gangetic valley – in regions as far east as Uttar Pradesh, Jharkhand and Bihar. With scanty populations scattered all over the subcontinent, there were plenty of food and herbs for medicines.

Maritime Trade[26]

Maritime trade was an important part of economy of the cities and the coastal areas of the *Sapta Saindhava* region. The ocean and the rivers played a key role in the life of the Vedic people. Several Sanskrit words relate to



maritime activity; such as *Nouka* (boat), *Bhavsagar* (world like an ocean) and *Sagar* or *Sindhu* (ocean) etc. Symbolism and the imagery reflected in the *Rig Veda* is oceanic. Maritime trade was a part of the socioeconomic life during the pastoral period; it was also the main aspect of the later urban phase of the Indus-Sarasvati Civilization.

As population grew and urban culture began, perennial rivers of the region were used for internal trade. There is ample evidence to show that these river routes were used for trade with other countries as well. Traders from the North would bring items to be sent to the west by boat all the way to the delta of the Indus-Sarasvati Rivers and export them to the Arab and East European countries. Cotton and spices were two of the many items exported to Central Asia and the Mediterranean countries.[27]

New Words to Learn

- Chronology – sequence of events in a given time frame
- *Duta* – ambassador
- *Janaraj* – self government
- Panchayat – rural government by five elected heads[28]

- *Parishad* – council
- *Puranas* – Ancient lore. They contain history, legends and genealogies of kings and dynasties
- *Sabha* – assembly
- *Samiti* – committee
- *Shruti* – oral rendition of literature
- *Smriti* – Literature passed on in written form
- *Vedangas* – Vedas have several other limbs which are known as *Upavedas* or *Vedangas*
- *Yajna* – Vedic ceremonies where fire is kindled in altars and prayers and offerings are made to the Supreme Being and the various forces of nature

Summary

Vedic times which started around 4,600 B.C. are known for its literature, organization of society, emergence of sociopolitical institutions, music and other art forms and the development of its economy and polity. The greatest achievement of this time was the creation of a common pool of literature which enabled the readers to understand and appreciate the currents of man's thoughts as also the movement of the mind of Indians which though it flows through different linguistic channels has common urges and similar aspirations.

Concepts to Understand

1. Time frame of the early dynasties is approximate. It is based on the available evidence and is likely to change as a result of the research done in various other fields of study.
2. In the subcontinent of India, several kingdoms arose which ruled for centuries.
3. Though monarchy was an accepted form of government, from the earliest days, there was self government at the local levels.
4. Economic life was based on arts, crafts, agriculture and trade.
5. Rich literature was created by the Vedic people. This literature was passed on from generation to generation through the oral tradition.
6. Vedas are hailed by famous philosophers of modern times as the earliest books of philosophy which emphasized noblest aspirations of mankind.

7. Many of the Vedic traditions are still followed by millions of people all over the world.

Questions

1. How did the Vedic people preserve their literature?
2. How was the government organized during the Vedic times?
3. What are the modern democratic practices that were followed by the Vedic people?
4. Which of the Vedas describe the role of Government and the limits on the kings?
5. Do you think kings of those times enjoyed divine rights? Compare their position with the status of European kings during 11th century or in the periods earlier than that.
6. What were the main occupations of the Vedic people?
7. What is the difference between *Shruti* and *Smriti*? Which is more reliable as a source of history?
8. Explain the main aspects of maritime trade. Why was it important for the Vedic people?

Enrichment Activity

1. Vedas "formulate philosophical conceptions unequaled in India or perhaps anywhere else in the world"—Deussen. With specific examples from the chapter, discuss the uniqueness of Vedic literature, especially considering the time frame in which they were created.
2. Referring to the Vedas, Schopenhauer said, "They are destined sooner or later to become the faith of the people." Give reasons if you agree (or disagree) with the statement. Which key concepts are always applicable for harmony between nature and a person or a society?

Critical Thinking Activity

Vedic Age (based on Archeology)

1. B.B. Lal, Bisht, S.R. Rao, and many other archeologists have found ports and towns where they have found seals and bricks by the thousands along the banks of the now dried up Sarasvati River. S. Kalyanaraman has documented many of these archeological excavations.

Archeologist Gregory Possehl, a curator at the University of Pennsylvania Museum of Archeology and Anthropology in Philadelphia has written extensively about seals and other finds from these sites.

- How will the study of these new artifacts help the students of history?
- Students may discuss whether the evolution of the chariots is more likely to be in the flat lands of North India or in the uneven terrain and deserts of Central Asia.

Endnotes

[1] The earliest reliable astronomical date to be found in the Vedic literature is 6,500 B.C., conservatively estimated, 4,600 B.C. is considered to be the beginning of the Vedic Age.

[2] Source: *Sarasvati River and the Vedic Civilization*, N.S. Rajaram

[3] G. P. Singh, *Facets of Ancient Indian History and Culture*

[4] Another excellent source is the book *Gods, Sages and Kings* by David Frawley

[5] *Vedic Aryans and the Origin of Civilization* by Navaratna S. Rajaram and David Frawley, International Institute of Indian Studies

[6] For *Rajsuya Yajna*, review section 2, chapter 14

[7] Both Sarasvati and Drishadvati rivers vanished during the time of global drought between 2,200-1,900 B.C.

[8] Dr. Hussam Timani, Professor, Department of Religious Studies, Christopher Newport News University, Virginia

[9] Refer to, *Sacred People, Sacred Books, and Sacred Places in Lebanon: Druze Sages, Scriptures, and Shrines.* link:www.haigazian.edu.lb/News.jsp?id=40

[10] Ibid.

[11] Ibid.

[12] Ibid.

[13] See section 2, chapter 8

[14] For more details, see section 3, chapter 29

[15] Social life in a specialized economy is discussed in the chapter on *Varna Dharma,* commonly known as caste system.

[16] Refer to, Subhash Kak, 'Early Indian Architecture and Art', *Migration & Diffusion*, vol. 6, No. 23, 2005, pp. 6-27

[17] *Yajur Veda* prayer section 3, chapter 19, verse 9

[18] *Rig Veda, Mandala* X, hymn 124, verse 8 describes the duties of the king and the source of his power.

[19] *Atharva Veda* 3.4.2

[20] *Atharva Veda* 3.5.2

[21] In *Rig Veda, Atri Mandala*

[22] Refer to, *Republic in Ancient India– Need for a New paradigm in Political Science*, Anil Chawla

[23] Another name for Chanakya was Kautilya
[24] Kautilya – *Artha Sastra*
[25] For a detailed study, see *The Study of Indian History and Culture*, vol. 1, Bhishma Publications
[26] Map courtesy of Ananda M. Sharan
[27] Sanskrit word for cotton is *Karpasa* and Sumerian record show that *Kapazam* was a commodity imported from India. Source: *Karpasa* by K.D. Sethna
[28] *The Study of Indian History and Culture*, vol.1 by Bhishma Publications

Chapter 10

Vedic Age and the Technologically Advanced Indus-Sarasvati Civilization

Indus-Sarasvati Civilization

Chronology of events is no longer a matter of playing guessing games or inventing wild theories. Numerous relics have been found in the Indus to Sarasvati river basins. These artifacts are seals, pottery, sites showing layout of the cities, jewelry, stone structures, metal tools, figurines and many more.

With the help of advanced technology, a fairly accurate estimate of the time frame to which they belong can be made. *Age of the relics can be determined.*

Computers have made it possible to verify the astronomical references in the old texts by recreating the firmament described in the ancient texts.

Using astronomical information, the arbitrary dates given to this civilization as 2500-3500 B.C. can be adjusted. *The consensus is that this period began in the 9th millennia B.C. and continued till 1,900 B.C.*

This chapter will narrate the story of the river Sarasvati and how it vanished. It will also discuss the discovery of the new sites in the Indus-Sarasvati basin in the past fifty years, and how it has affected the chronology of the I-SVC and the Vedic Age. The chapter will discuss how the new excavations have proved that both I-SVC and the Vedic civilizations were the same. Using the evidence from geology, environmental history, literature and archeology, the chapter will describe various aspects of the life of the people in the *Sapta Saindhava* region and the factors leading to the decline of this civilization.

Maps given in the chapter show us several sites from where various types of relics and artifacts have been discovered.[1]

The following methods are being used to determine the age of these artifacts:

1. C-14 method for carbon testing
2. Satellite imaging for checking the geological and ecological changes in the various layers of ruins and mounds.
3. The use of computer software designed by the scientists to recreate the constellations in the sky as described by the literary texts. The use of these new technologies gives us a fairly good idea of the chronology *especially when other corroborative evidence also points to similar results.*

The Story of Sarasvati River and its Discovery

Evidence and Events

Existence of this mighty river is mentioned in the Vedic texts and other literature of the ancient times. Many historians referred to it as a mythical river. However, by 1978, more concrete evidence in the form of satellite images became available. Earth sensing satellites launched by NASA and Indian Space Research Organization (ISRO) acquired images of the dried river bed. These images show traces of ancient river courses. The images also confirmed the fact that this was a mighty river fed by several tributaries. Its width ranged from 6 to 8 kms and at some places its width exceeded 14 kms. A multidisciplinary team of experts under the leadership of V.S. Wakankar[2] led a ground expedition and checked the dried river bed from the Himalayas to the Rann of Kutch.

As we see from the map on p. 141, the oldest channel of the river flows into the Rann of Kutch. Its large delta was the seat of many cities and warehouses and the delta was the hub of maritime activity.

From the literary sources also, we find that Sarasvati was a mighty river. *Rig Veda* alone mentions it about sixty times. In various verses, it is described as the 'purest among rivers', 'holiest place on earth'. The most eloquent homage to the river is expressed in the verse which refers to it as the best of mothers, best of rivers and best of the *Devis*.

What Happened to the River?

Sarasvati River lost water because Satluj and Yamuna rivers—once tributaries of Sarasvati changed their course. Yamuna shifted eastward and Satluj shifted westward to join the river Indus. Another mighty river which fed Sarasvati was Drishadvati. This too dried up. All these changes reduced the flow of water in the upper course of the river. The lower course

vanished due to the ecological changes around 2,200 B.C. The global drought was one such change. Slowly the desert from the west encroached on the areas. Some Harappan sites in Rajasthan also show signs of at least one earthquake. All these changes led to the desiccation of the river. River Sarasvati eventually dried up by 1,900 B.C.

Some seasonal streams are still there, for example, Ghaggar channel in Haryana and Hakra in Gujarat.

More than 1,500 sites have been found in the dried bed of the river in the past 50 years. Historians agree that more cities were in the Sarasvati basin than in the Indus basin. One can see this in the map of the sites. The river flowed through the modern states of Haryana, Punjab, Rajasthan, Gujarat in India and also in Pakistan emptying in the Arabian Sea.

During five to six millennia B.C. many rivers changed courses. Not only did the rivers change their course many times but the coast line changed too. The Gulf of Cambay discoveries, by National Institute of Ocean Technology (NIOT), India have proved beyond doubt, the existence of river beds on the ocean floor. Such explorations have to be undertaken on the land surface also for more evidence about settlements in the area.

Here is a recent quote, "Satellite studies have shown clearly the river flowing through Rajasthan desert and joining the Gulf of Kutch, only that the river is invisible and runs several feet below the ground."[3]

Sarasvati River is not a myth. At this point, the debate about the reality of Sarasvati River is needless.

The *Mahabharata* war describes Sarasvati River and the civilization on the banks of the river. This civilization along the banks and in the seven river basins continued for a long period of time (map of rivers- p. 54). Due to a series of geological disturbances, the area of Chambal ravines was elevated and Yamuna changed course towards east, depriving Rajasthan of the waters of both Sarasvati and Yamuna. This turned the area into a desert. Geologists also believe that River Indus shifted westwards during this geological disturbance of *Pralaya* around 3,100 B.C.[4]

Pointing to the archeological evidence surfacing in the past six decades, Michel Danino says, "the highest concentration of Harappan settlements is found along a huge and now dry river, which follows with some precision (though more to the North) the traditional Sarasvati, and once flowed across Punjab, Haryana, Rajasthan, Sindh and Gujarat, joining the Arabian sea in Kutch. Its exact course has been plotted by geologists and confirmed by satellite photography. The Bhabha Atomic Research Center has even

found that in parts of Rajasthan, "in extreme desert conditions," the water of the Sarasvati "remains available at a depth of fifty to sixty metres." According to Michel Danino, the radiocarbon measurements of some water samples have revealed the dates ranging from 2,400 to 7,400 years ago, with "no modern recharge discernible." Today, scientists agree that this river, whose bed was three to ten kilometers wide, could only have been the ancient Sarasvati—the same river that is often praised in the hymns in the *Rig Veda*. This identification is accepted by most archeologists, like Kenoyer, Raymond and Bridget Allchin, G. L. Possehl and D. P. Agrawal. But it so happens that this river dried up in stages, and its final disappearance has been scientifically dated to about 2,000 B.C. *Then why did the supposed Aryans, who are said to have invaded India five hundred years later and to have composed the* Rig Veda *still later, lavish so much praise on a long dried-up river? It stands to reason that the composers of the Vedic hymns lived near the Sarasvati while it was still in full flow, and that again fits perfectly well with the Harappan era."*[5]

The italicized[6] part of the quote clarifies some issues of chronology with the help of archeology.

Ample literary evidence was always there. Now the hard evidence as a result of archeological and geological excavations is pouring in. Some scientific facts are also given by the researchers in the field of genetics and natural history, geology, glaciology, ecology and hydrology.

While all other factors have been discussed, evidence emerging from glaciology and hydrology is given in the following excerpt from Jag Mohan's letter:

> "Hydrological: After the Pokhran nuclear explosion on May 11, 1998, the Bhabha Atomic Research Center conducted tests to assess the impact of the explosions on the quality of water in the area around. These tests, interalia, revealed that the water in the area was potable, about 8,000 to 14,000 years old, came from the Himalayan glaciers and was being slowly recharged through aquifers from somewhere in the north. Separately, the Central Ground Water Commission dug a number of wells on and along the dry bed. Out of 24 wells dug, 23 yielded potable water."[7]

Recent researches done by the Indian Space Research Organization (ISRO) indicate that Sarasvati, the sacred river mentioned in the Vedic and post-Vedic literature can be revived. Already at Jaisalmer in Rajasthan, "Nearly 76,000 liters of fresh drinking water are coming out every hour from the ONGC's Jaisalmer project."[8]

According to Jaina, "The source of Sarasvati is at present in the upper Himalayas. From there it reaches Adi Badri, Bilaspur, Mustafabad, Bhagwanpur, Pipli, Kurukshetra, Pehowa, Kaithal, Kalayat, Tohana, Fatehabad and Sirsa. Finally, this river merges in the Bay of Khambat through Kutch and Nal Sarovar (Saurashtra)."

This project will involve finding the exact spots for digging with the help of satellite images. This project will help solve India's water shortage especially in Rajasthan and Haryana states. Hard facts when studied together with literary evidence point to the following aspects:

1. History of Indian Civilization began a few millennia earlier than what has been shown so far.
2. The civilization in the region has a continuity.
3. Vedas were written earlier than the glorious period of Indus-Sarasvati Civilization.
4. Both Indus and Sarasvati civilizations were contemporaneous.
5. Similarities in the relics found point to the fact that civilization in these basins had a common origin.
6. Their common origin was in the early Vedic period.
7. The settlements show various stages of economic development.
8. Besides Sanskrit, there were other languages used in the region. Whereas due to the strong tradition of oral rendition (in the form of daily prayers) made it possible for the texts to survive, many other texts were lost. Hieroglyphs found do not suggest that the Indus valley people did not have a language. Picture seals and inscriptions on stones and metal have a better chance of surviving thousands of years of natural and man made calamities than the texts have. In short, 3067 B.C., the date of *Mahabharata* War and the existence of Sarasvati River prior to that time are a fact of history, rather than a matter of debate.

Times of Sarasvati Civilization

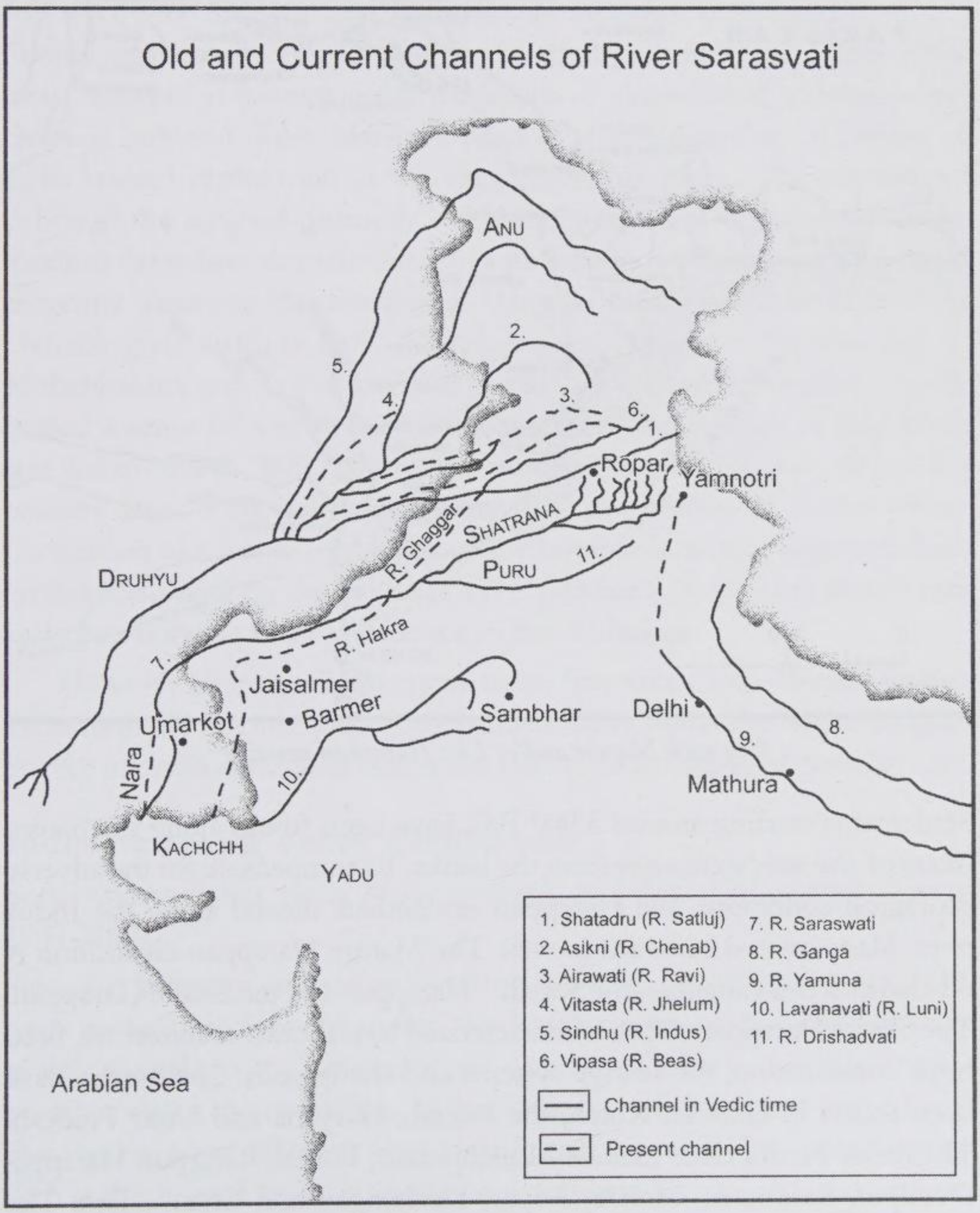
The date of the *Mahabharata* War and the start of *Kaliyuga* (Iron Age) have been discussed extensively in the previous pages. Both the literary reference to the submerging of Dwarka and the astronomical references in the *Mahabharata* point to the year 3102 B.C. as the date when *Kaliyuga* began. While the carbon dating of the relics and the study of astronomical configurations continue, the debate about various phases of the Sarasvati civilization continues. The new evidence as also the methods of testing the old evidence are being used to put the pieces together of various phases of these mighty civilizations in these river basins.

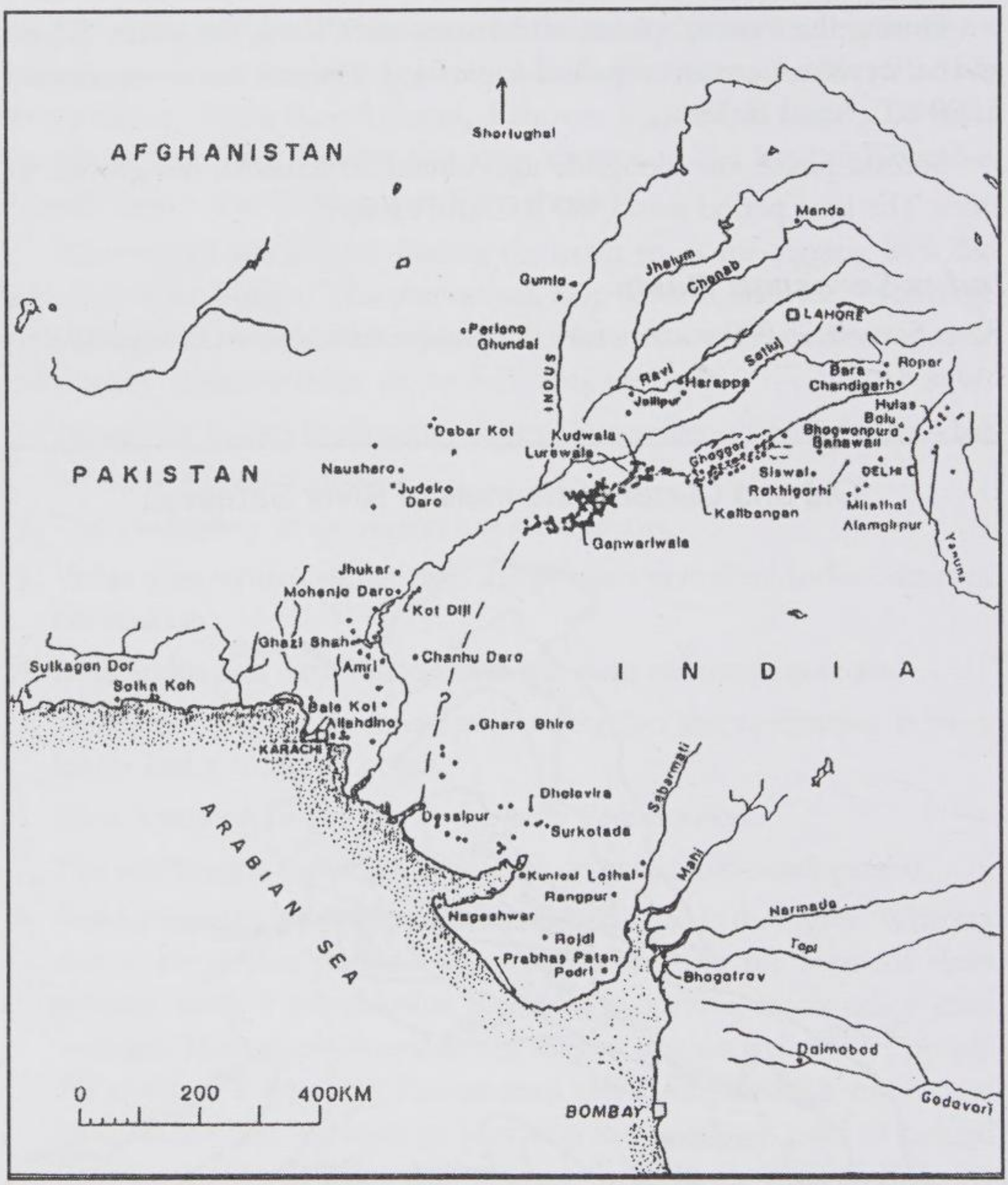
During the Pastoral phase, settlements were along the rivers. Wheat and barley were the main crops and staple food. The time frame was around 5,000 B.C. [9] and earlier.

Second phase saw alongside agricultural settlements, the growth of cities. The time period was 3,500 B.C. and earlier[10].

Indus-Sarasvati Basin

River Sarasvati 5,000 years before the present time used to flow parallel to Indus River.[11]





Sites with Mature and/or Late Harappan remains[12]

Settlements starting around 5,000 B.C. have been found along the banks. Many of the sites were away from the banks. To compensate for the adverse ecological conditions, the Harappan settlements moved along the Indus river. Many moved eastward as well. The Mature Harappan civilization is divided into two variants—the Sorath[13] Harappan and the Sindhi Harappan. The Sindhi Harappan sites are characterized by elaborate architecture, fired brick construction, the sewage systems and stamp seals. Their styles have been found in Gujarat, Kutch, the Punjab, Haryana and Uttar Pradesh. The major Sindhi cities include Mohenjodaro, Lothal, Rangpur, Harappa, Desalpur, Surkotada, Manda, Ropar, Kalibangan and Chanhudaro. The

Sindhi Harappans possessed writing skills and built massive brick platforms, designed dug up wells, used a system of weights-and-measures, and created Black-and-Red Ware (BRW), metal work and beads.[14] The Sorath Harappans were masters of hydraulic engineering. They were a riverine people who used irrigation for agriculture. They had both the *shaduf* and windmills.[15] In the Harappan sites domestic quarters and industrial areas were isolated from each other.

Discoveries and Excavations

Accidental Discovery of Ruins of the Ancient Cities

Several cities mushroomed along the banks of major rivers – Indus in the west, Sarasvati in the east and in the basins of a number of tributaries and rivers in between. John Marshall, head of the Archaeological Survey of India started exploration at the sites around Harappa. The mounds of debris at the site had distinctly old bricks which were being sold by the locals to the railway department. Daya Ram Sahni was another archeologist diligently assessing the remains at Harappa in 1921. There were other archeologists such as D.R. Bhandarkar, who missed the message at Mohenjodaro, and Rakhaldas Banerji, who upon repeated exposure finally gained a sense of awe there.[16] Prior to this, a Harappa site at Ravi River was discovered in 1826. The real excavations on this site were resumed a century later. This led to the writing of the history of Indus Valley Civilization which now forms part of the seven river basins (*Sapta Saindhava*) civilization based on the evidence of excavations of the sites in this area and corroborative literary evidence in the Vedas.

However after the discovery of these first sites by the British, further excavation did not take place. Independent India under the Archaeological Survey of India continued excavations after nearly a lapse of four decades.

Indus-Sarasvati Valley Civilization

Settlements other than Mohenjodaro and Harappa found during 1947-2004:

Since the language and script found on the seals and other artifacts have been partially deciphered so far, the historic view of this civilization is mostly based on the archeological evidence.[17] There is ample literary evidence about the civilization in the Vedic texts. Subsequent to the initial discoveries, some 800 new sites have been excavated. The main features such as the ways of living, economy, and the planned cities, the field patterns of agriculture, the usage of waterproof brick and the architecture are very

similar at each of the sites. The nearness to rivers and oceans has caused some variations in these features.

In this discussion, the following sites will be studied: Mohenjodaro and Harappa (Punjab, now in Pakistan); Kalibangan (Rajasthan); Dholavira and Lothal (Gujarat); Banawali (Haryana); Ganeriwala, Rakhigarhi (Rajasthan); Surkotada (Gujarat); and Mehrgarh (now in Pakistan). Each city, though similar, added a new dimension to the civilization. At each site the artifacts and remains will be listed for the students to form their own ideas about the civilization. Originally declared as Indus Valley, this civilization is now given the name Indus-Sarasvati Civilization because many of the sites excavated have been in the seven river basins and after the year 2,000 most of them are found to be on the banks of Sarasvati River.

After the discoveries at Mohenjodaro, the historians concluded that these were isolated cases of developed settlements which were destroyed by the invading Aryans around 1,500 B.C. This was an erroneous conclusion hastily drawn. After this conclusion, excavations were discontinued.

Let us go into the facts—many of the new facts have been emerging almost every day. Many new Harappan style settlements were discovered in the last one decade in the eastern parts of Uttar Pradesh, Bihar and Haryana.

Here are excerpts from a few reports worth our attention, *The Hindu*, February 21, 2006:

> CHANDIGARH: Archeologists have discovered the ruins of a city dating back to the Harappan civilization at Farmana Khas, about 12 km from Meham on the Julana road in Haryana. Terming the discovery as significant, a spokesman of the Haryana Archeology and Museums Department said here on Monday that it was the first city of the Harappan civilization found buried in Haryana. It was evident from the nature of settlements and richness of antiquities found at the site that the city belonged to the Harappan era. So far, towns dating back to this civilisation—Banawali, Bhirdana—and the village of Kunal have been unearthed in Haryana but this is the first time that the ruins of a city have been discovered."

This city of *Daksh Khera*, was a big city spread over an area of 32 acres. The city was found buried under an eleven feet high mound. Because of its size, historians believe that *Daksh Khera* resembled other settlements (in I-SVC) of the same period. Evidence from several sources suggests that the city was located on the banks of the Yamuna, which is believed to have passed through the area in ancient times.[18] Geologists believe that in ancient

times, Yamuna river used to pass through the states (of Haryana and Uttar Pradesh) 'at Indri, Karnal, southwest of western Jamuna canal, Mittathal, Tigrana, Tosham and then towards Nohar Bhadra.'[19] Ahead of Tosham, the course of the river is covered by sand ruins. In the month of February of 2006, another discovery was reported at Sonauli located near Baghpat in western U.P. A farmer working in a sugar cane field accidentally dug out an ancient burial ground. For a year it remained unknown to the ASI. Informed by a local, ASI started the excavation and found an approximately 4,000 year old burial ground. *Sonauli's find is unique because this is the first Harappan burial site to be found in U.P.* More importantly, it's the first Harappan site where two antenna swords were found buried next to the skeletons.

Almost 126 skeletons have been recovered, which indicate that the mound was a fairly large habitation. While some are broken, others are remarkably well-preserved. One of the first skeletons to be discovered was found wearing copper bracelets on both hands. This resembles the bracelet worn by the bronze figure found at a faraway site in the Sarasvati basin. Other finds include bead necklaces, copper spearheads, gold ornaments and a few anthropomorphic figures. These are also very similar to the ones found at several other sites in I-SVC basins. Pending carbon dating of the skeletons, a firm date of this settlement cannot be determined.

Thus, we can conclude that Indus valley or Harappan was not an isolated civilization. Other parallel civilizations prospered in the basins of the rivers such as Ganges, Sone, Tamasa and Mahanadi in the eastern and central parts of the Indian subcontinent. All these people living in civilized communities were people from various parts of the Indian subcontinent.

Excavations carried out by a French team, headed by Jean-Francois Jarrige, during the last 15 years, at Mehrgarh, (in Pakistan since 1947), have pinpointed the beginnings of civilisation in India and shown that, "Indus-Sarasvati civilisation had no moorings in Mesopotamia or any civilization outside India." Relics show similarities to present day Hindu culture.

The people in Mehrgarh tradition are the people of India today. There are similarities between the social and religious practices of the Harappan people and the people of present-day India. For example, the spiraled bangles of the type found around the figurine of the Harappan dancing girl can still be seen on the arms of women in Haryana, Rajasthan, Gujarat, and other regions. Again, as was the case with Harappan women, *sindoor* is applied by married women of Hindu families. Some other common features of the two periods are: the practice of worshipping trees, placing of *Swastika* symbol at the entrance of the houses etc.

Relics from the Indus-Sarasvati Basin revealing religion of these areas

Several religious relics found in the Indus-Sarasvati basins confirm three important points of similarities;

a. The Divine is accepted in all forms.

b. Not only the essentials of ceremonies and concepts are similar in Indus and Sarasvati region but they also confirm a common origin which is Vedic. These essentials aspects continue to this day.

c. Regional diversity has always been part of the Indian subcontinent as also the common thread. Respect for nature and universalism and the use of symbolism are some of these common threads.

Figurines of *Pasupati*, *Shiva* and *Rudra* have been among the relics found during excavations. It may be remembered that these names are part of the Vedic prayers.

Fire altars for offering worship have also been found—fire altars have been extensively used for *yajna* ceremonies by the Vedic people down the ages. At several sites, seals have been found showing *Swastika*, *Om* and the yogic postures. The leaves of *Ashvattha* tree along with the symbol of *Om* prove the Indus-Sarasvati connection very clearly. Indus people, more commonly known as the Harappans were Vedic people and as Rajaram says, "Harappan and the Vedic civilizations were one. Harappan artifacts are material representations of ideas and thoughts in the Vedic literature."

Mohenjodaro terra-cotta Mother Goddess, with headgear to hold two lamps.

d. Life is celebrated on various occasions—as the seasons change, as crops are harvested when a child is born, when he/she enters an educational institution and when he/she is married. There are elaborate celebrations for these festive occasions while daily prayers are simple. These are several millennia old customs and ceremonies. Some of the relics and altars found confirm corroborative evidence from literary sources.

The Divine is seen as female—this is a continuous theme all across India. Mother figure is as much worshipped as the Father figure. From the

earliest beginnings, the subcontinent from the remote areas of the north to the southern tip worshipped mountain peaks, glacial beginnings of rivers as the Divine Mother. Sherpas of the Himalayan region still worship *Devis* of the peaks before venturing on difficult mountaineering trips.

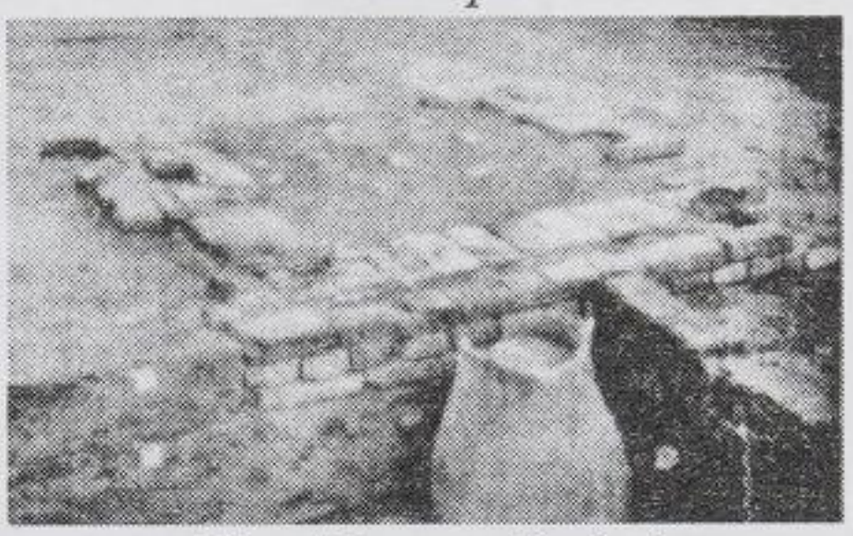
The tradition of lighted butter lamps were also used around or in front of the figures of the ethereal beings and it continues to this day.[20]

Let us now examine the pictures of some of these figurines and impressions on the seals.

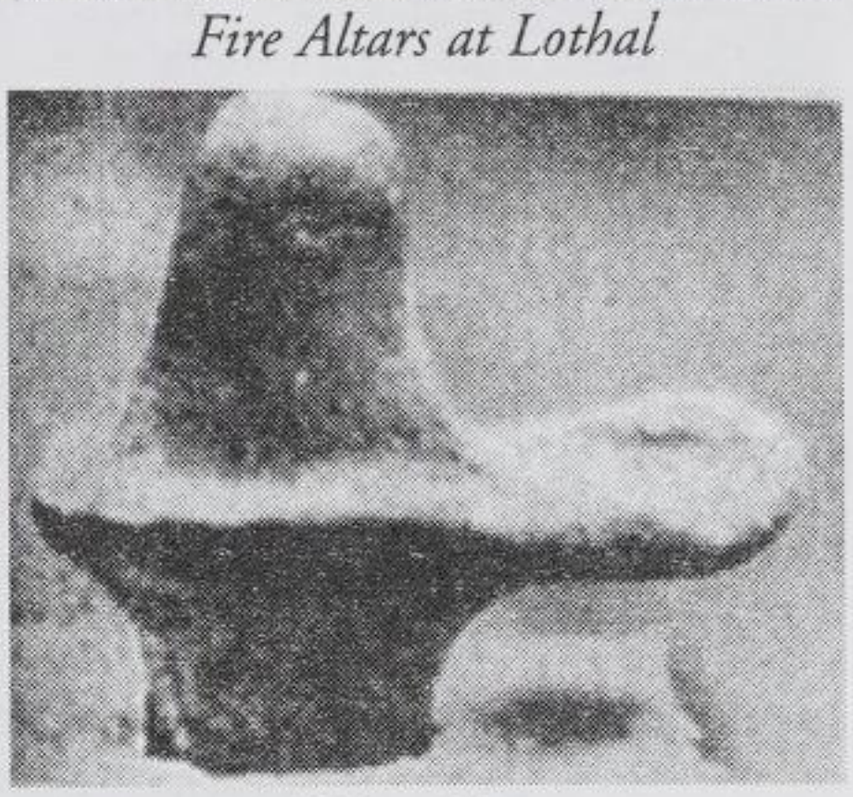
Harappan seals found during excavations show a panel of five *Swastikas*. *Swastika* means 'maker of welfare, or what brings welfare'. In a verse from *Yajur Veda*,[21] the word '*Swasti*' is used five times showing relation between the Vedic symbol and the *Swastika* Indus panel.

The seals below also show Vedic symbol of *Om* with the leaves of the *Pipal* tree[22] considered sacred in Vedic traditions.

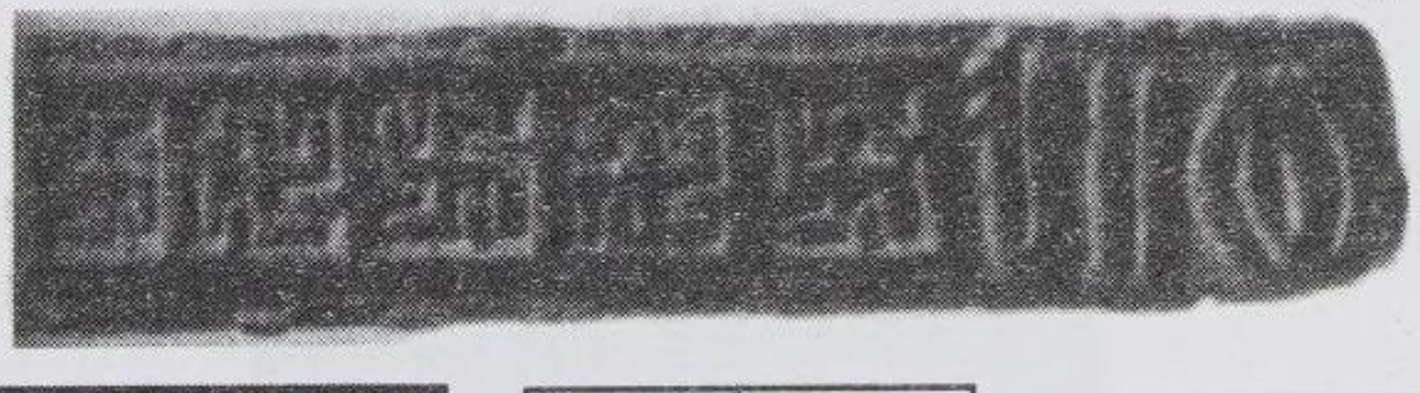
Yogic posture – Shiva also known as Pashupati



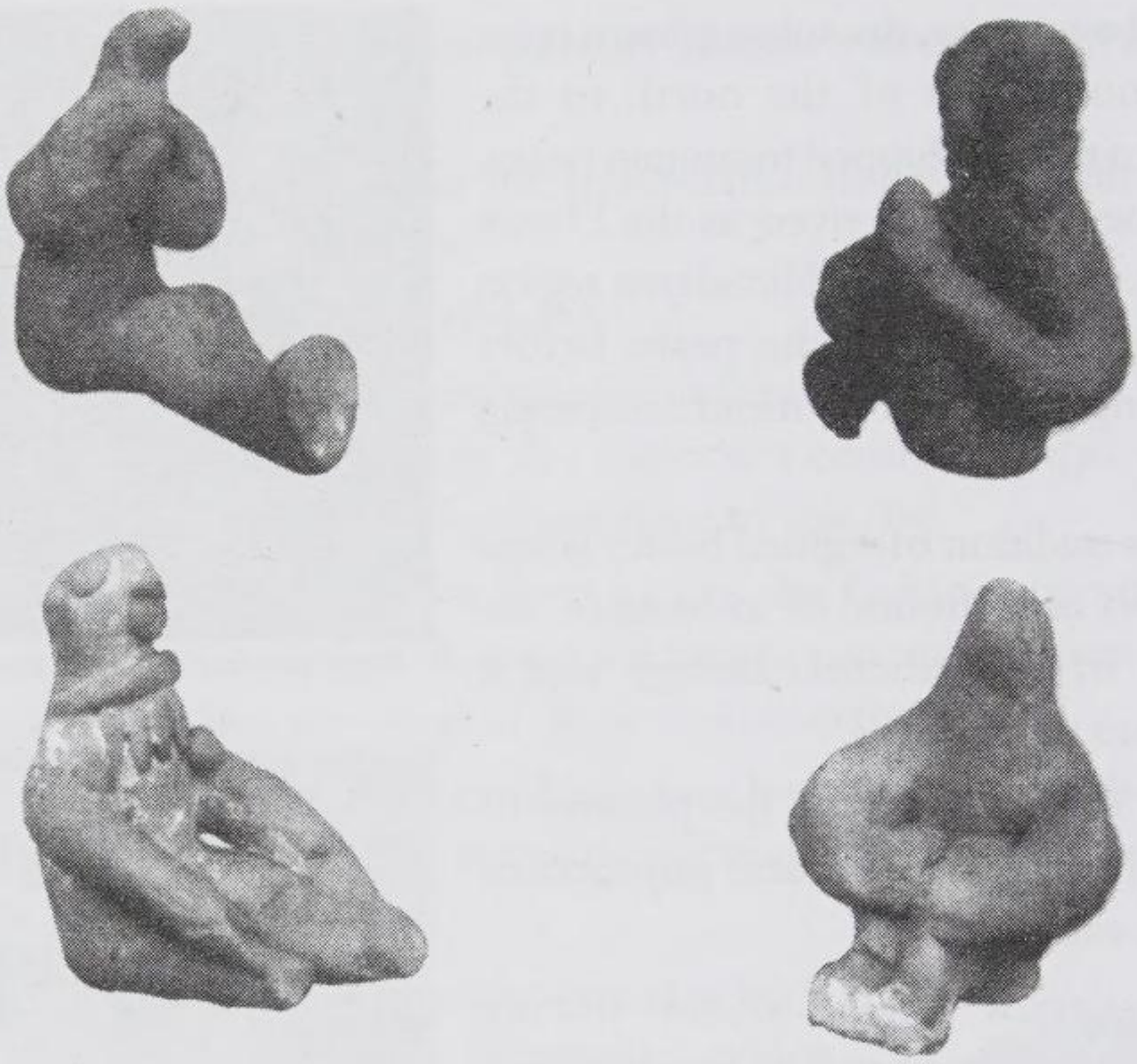
Fire Altars at Lothal



Shiva Linga



Swastika and Om panel



Terra-cotta figurines in various Yogic postures have been found from many Harappan locations.

Bronze Statue (CA. 2500 B.C.)
A dancer wearing ornaments[23]
Picture on pages 146-8, courtesy – Michel Danino

Town Planning and Architecture

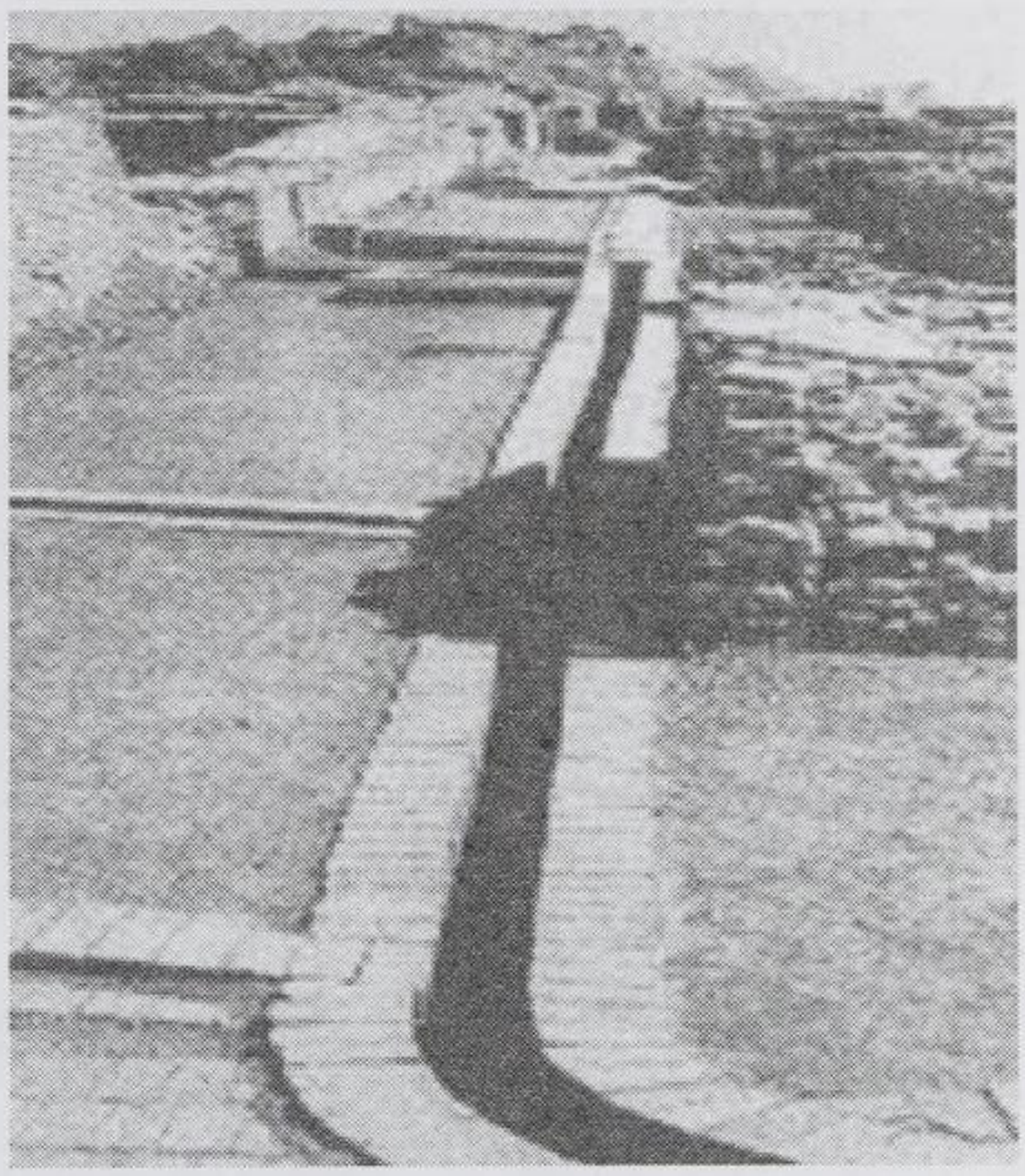
Main Finds

The ruins show well-planned towns with three sections, the citadel (in the west of the city) for the priestly/ruling class, two lower sections (to the east), one for the farmers and merchants and the other for the labor class. All the towns show similar construction of houses—along the three outer walls there were rooms, the fourth side was usually kept open for the bullock cart to enter. Each house had a courtyard and a large bath made of water proof bricks. The courtyard was used for cooking and clay ovens (*Tandoor*) were used. The citadel was a fortress type area and had a larger bath and altars for religious ceremonies.

Layout of Mohenjodaro—Drainage System

Brick Technology

Oven baked and sun dried bricks were used as main building material. It is amazing that in that remote past, people knew how to make the bricks of the exact same size. Fire altars, and many reservoirs and citadel were also made of bricks.



"The most important legacy of this early civilization is the influence its brick technology *may* have had on the altar building required by the Vedic religion that followed. A theory of the 'interlinkage' of the Harappan and Vedic cultures has recently arisen from a variety of studies, and it may come to light that there was a greater interaction between the two civilizations than currently thought."[24] In fact historians and scholars agree that these two were the same civilization.

Sewer system in the cities

Ruins of the sewer system show some clay pipes and wells. Deep wells collected fresh rain water. The pipes carried dirty used water from houses

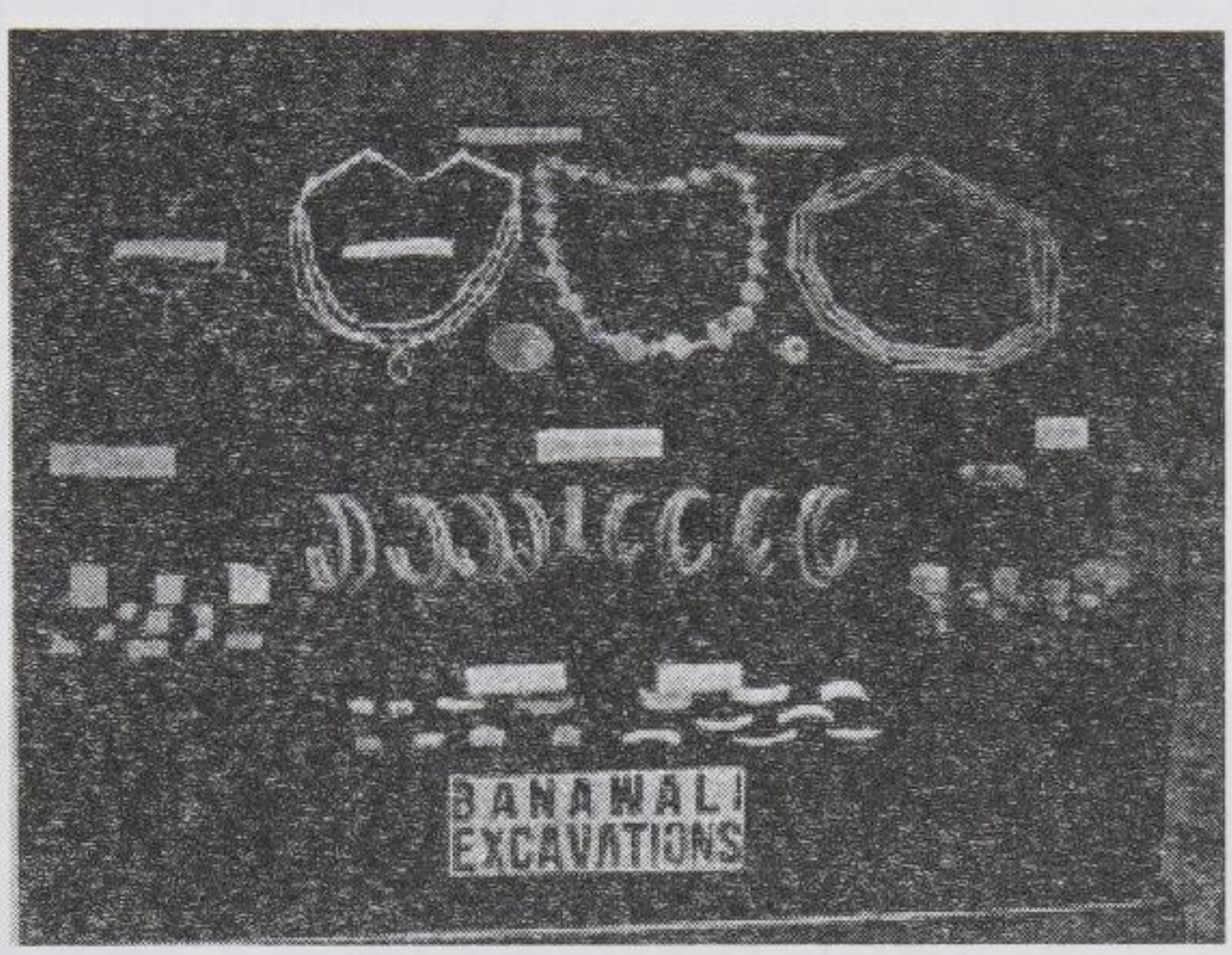
and the citadel to the main sewer system that ran along the city streets and finally emptied in the rivers. The most important feature of this civilization is that the provision of fresh water, bathing facilities and the sewer system were not only for the upper class as in the case of Egyptian and Sumerian civilizations, these were for the common people as well. Ruins at Banawali show a moat around the town and it seems that the water was channelized from the nearby Sarasvati River. It also shows the merger of the two parts of the town. Dholavira had three very clearly defined parts of the town. In this city, stone was used and stone wells were there for the storage of water. The town shows multiple fortifications. Ruins of an elaborate dockyard are found in Lothal which is situated on the tributary of Sabarmati River. The ruins also show a large warehouse most likely to store grains. This indicates that the surplus grains and other industrial products must have been a part of marine trade in this town.

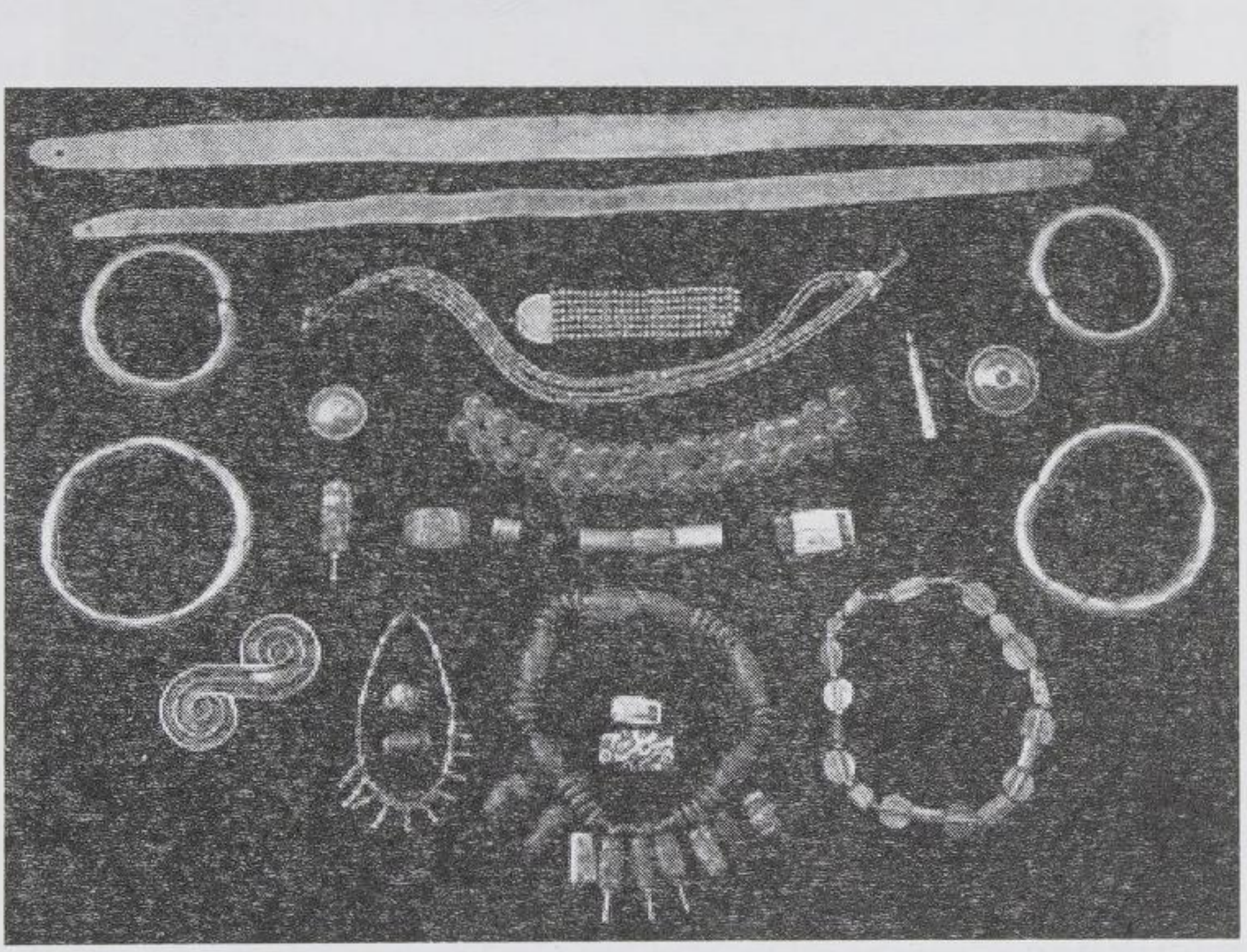
Mound and the Bath: Mohenjodaro (ca. 2500 B.C.)

Arts and Crafts found at Different Sites in the Indus-Sarasvati Valleys[25]

Many ornaments were made of Lapis Lazuli – a blue stone, red carnelian and beads. Other finds from these sites are terra-cotta figurines, seals, pottery, ornaments made of beads and stones pierced to form necklaces and earrings, burial pits, brick kilns, furnaces and moats to name a few. A

recent find of Harappan pottery shows pictures of the *Jataka* tale of 'Fox and the Crow'.[26] Students may remember that ideas traveled from one region to the other and the stories of *Panchatantra* and *Jataka Tales* later came to be known to the West as *Aesop's Tales*.





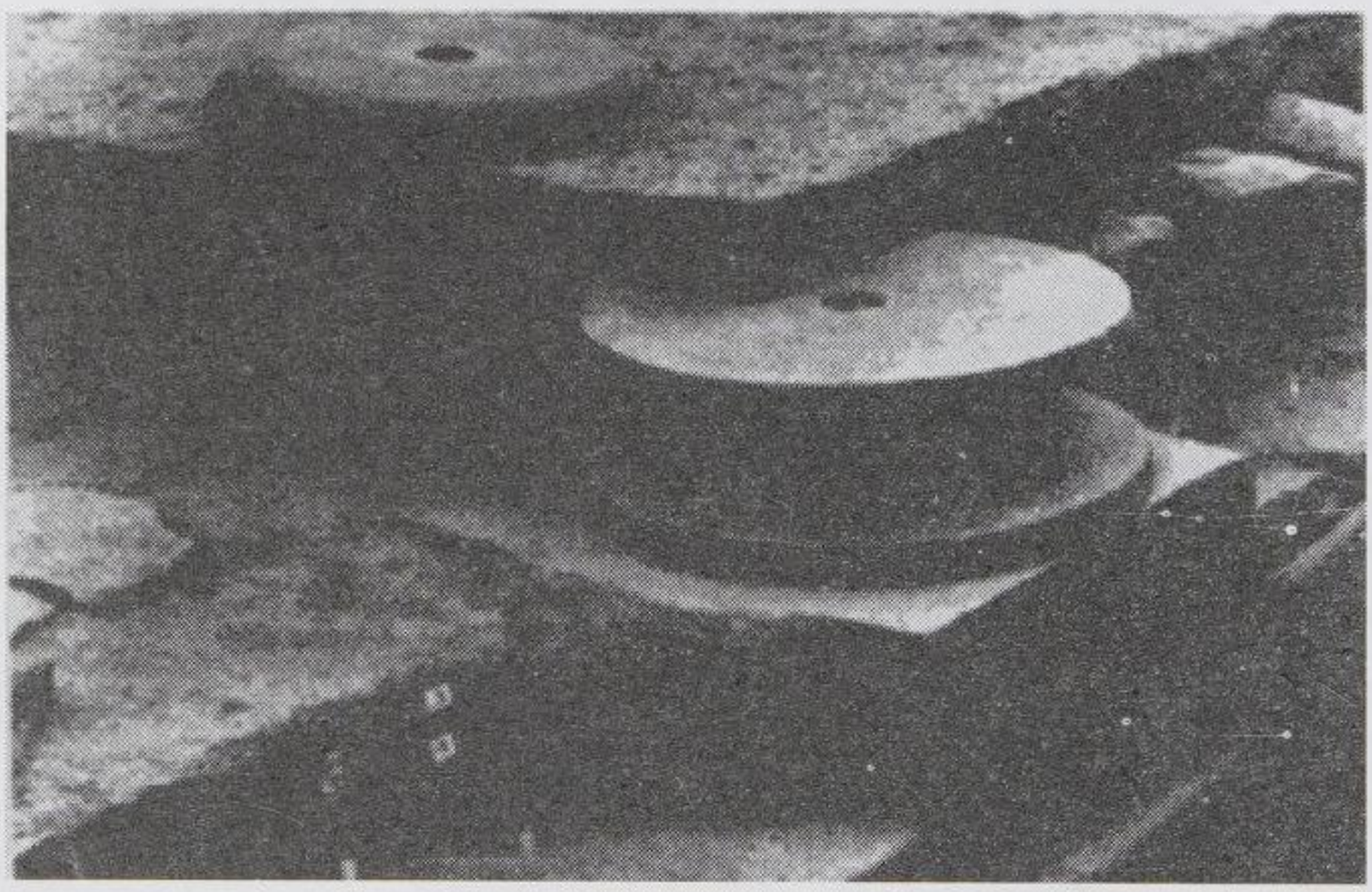
It may be noted that Banawali is in modern day Haryana; it is not on or around Indus River. In fact, most of the recently found sites are in the Sarasvati Basin.

Architectural Structure

The excavations at Dholavira have revealed some interesting evidence of engineering ingenuity of the Indus-Sarasvati people. Architectural traditions of the Indus-Sarasvati Civilization continue to this day. Rock cut reservoir at Dholavira proves the competence of the rock cutters of those ancient times. The same type of technique was later used by the architects who built temples and caves of Ellora and southern India.

The creation of polished stone pillars and the use of ring stones as structural supports for multi-storied structures at Dholavira are unparalleled architectural marvels in the world of those days. The architects of many monuments built later in India continued to follow these techniques.

Below is a picture which the students can compare with modern building techniques.[27]



Use of Structural Ringstones in Dholavira (CA. 2500 B.C.)

At Dholavira site, several layers of the settlement have been found. By using the C-14 method, geologists and archeologists agree that the top layer dates 5,000 B.C. Lower layers have not yet been dated but historians like Jarridge assume that the beginning of the settlement may be as early as the 7th millennium B.C.

Agriculture

Communities living in ISV regions grew many types of food. In fact they had to build warehouses to store surplus grains which were traded in other parts of the subcontinent and abroad. For that reason they developed weights and measures. Cereal impressions of grains of different varieties

found in southern parts of the valleys suggest that agriculture in that area was diversified, and well developed. Cotton was also cultivated.[28]

People worshipped implements and agricultural tools in elaborate ceremonies before tilling the soil. An ancient *Yajna* ceremony involved getting the blessings of natural powers for the plow and other such tools.

Evidence of the bone industry suggests that the garbage was recycled and used as fertilizer for agriculture. This practice continued till about four decades ago when the farmers found it easier to use chemical fertilizers.

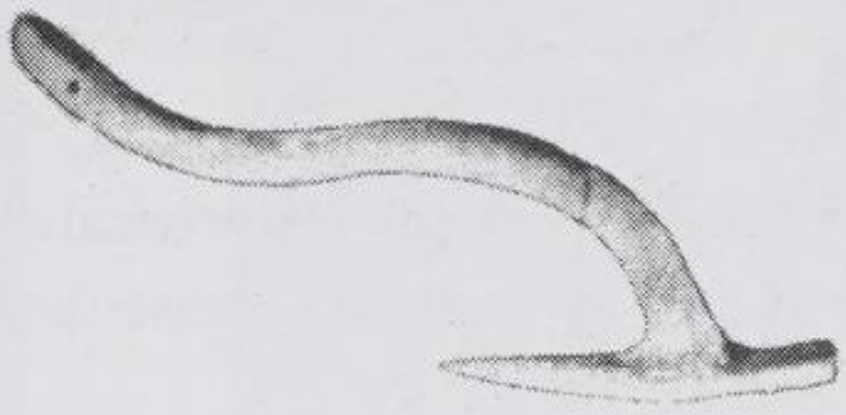
Burial places were found at these sites showing shreds of bones suggesting that the bodies were first cremated and then the bones were buried. Pratap C. Dutta of the ASI found a pot dating back to the first half of the 9th millennium B.C. at a burial site near Sarai Nahar Rai in Pratapgarh district in Uttar Pradesh. At this point, one can assume that this is perhaps, the earliest evidence of invention and use of pottery.

Complex Economy of the Sapta Saindhava Society

Agriculture was the major occupation. Abundant food required storage facilities. Warehouses in the Gujarat peninsula prove that river-ways were used to transport food from north to the southern parts.

Recent finds at Mehrgarh shows that rice was cultivated as early as 7,000 years ago. Other crops cultivated in the valleys were millets, barley and wheat.

Urban- industrial nature of the sites proves that the people of these valleys were good artisans. Several pictures in this chapter show the extent of their knowledge of metallurgy. We can also judge their engineering and masonry skills and their skills as metal smiths from the complicated structures of reservoirs, planned townships and sewer and drainage system. The terra-cotta figurines, jewelry and impressions on the seals attest to their skills as metal smiths. These people were good artisans.



Tools used during that period[29]

Trade—both external and internal required that weights and measures were accurate. Recent discovery of a scale from several sites prove that the people of Indus-Sarasvati regions, commonly known as Harappans, had invented the weights, the measures, and a scale.

Knowledge of Mathematics and Geometry

People in these valleys developed the first numerals in Brahmi script and used the decimal system. They designed a decimal ruler. Ian Pearce, a noted mathematician has an interesting observation about this ruler. He says, "Also of great interest is a remarkably accurate decimal ruler known as the Mohenjodaro ruler." Subdivisions on the ruler have markings at a length of 1.32 inches.[30] This length has been named as Indus inch. With a margin of error of just 0.005 inches, it is a very precise scale. Furthermore, a correspondence has been noted between the Indus scale and the brick size. Bricks (found in various locations) were found to have dimensions that were integral multiples of the graduations of their respective scales, which suggest advanced mathematical thinking."

Here is a picture of a ruler found at Lothal[31]

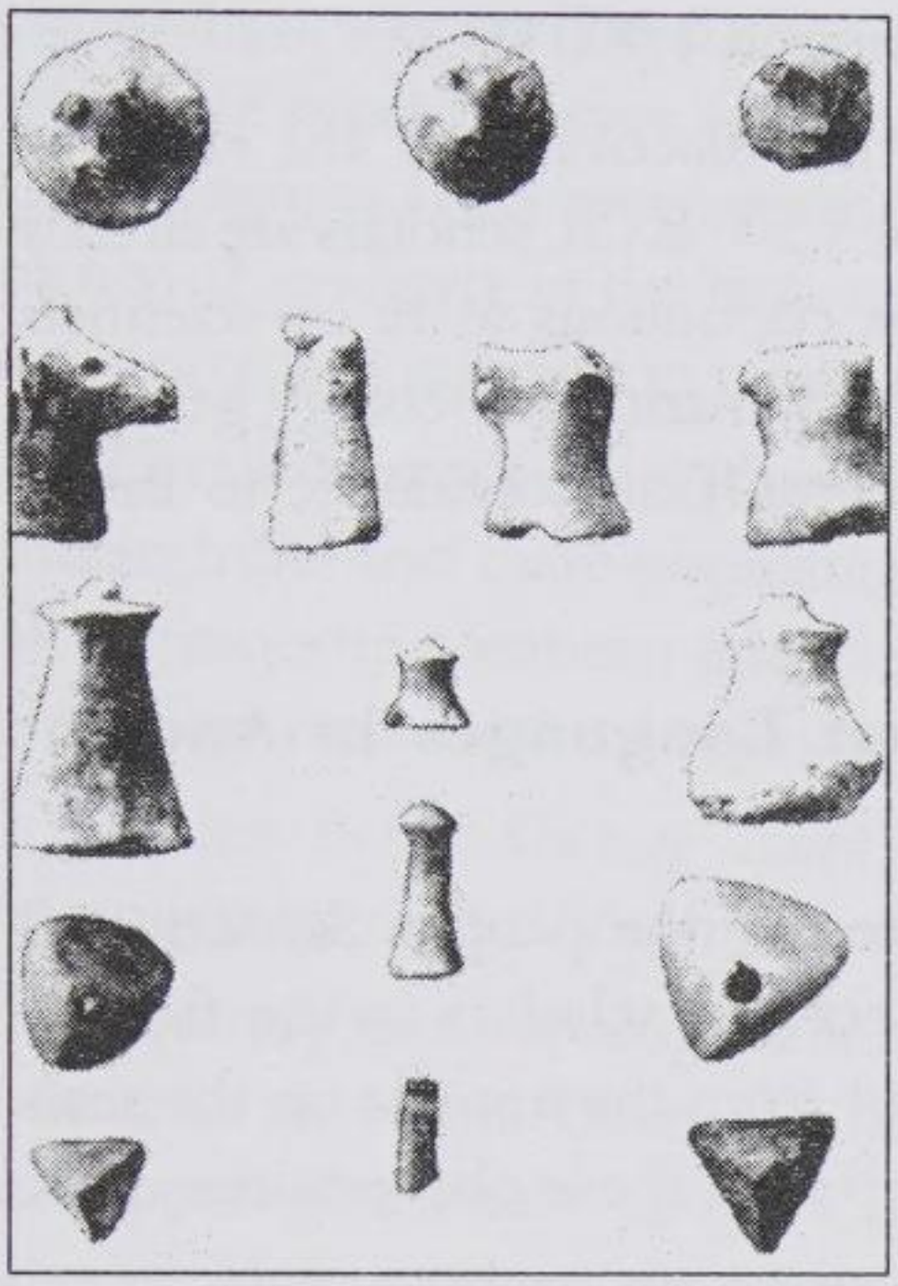
> "Not only are the markings on all the excavated measuring devices decimal in nature, but there is also research currently being conducted, which is attempting, with success, to show a connection between the Brahmi and Indus scripts. This lends indirect support to suggestions of the existence of early decimal numeral forms. … The Brahmi numerals undoubtedly developed into the numeral forms we use today."[32]

According to R.C. Gupta, "In fact the level of mathematical knowledge implied in various geometrical designs, accurate layout of streets and drains and various building constructions etc. was quite high (from a practical point of view)."[33]

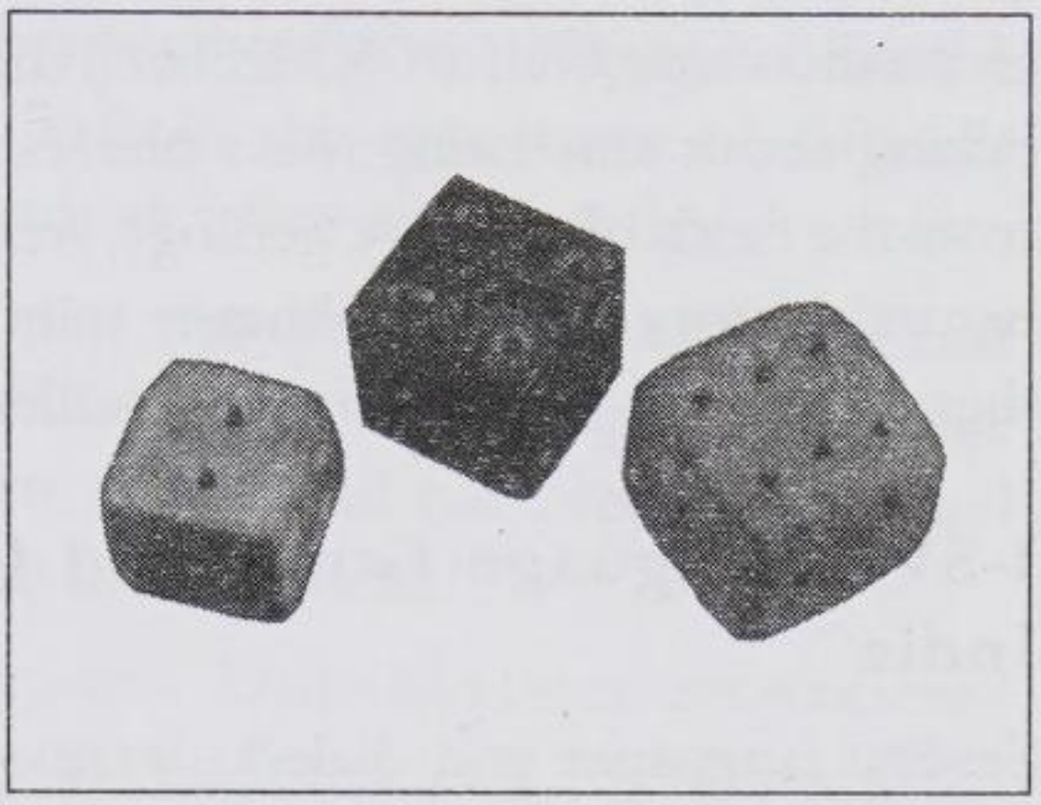
Many seals found from various sites show impressions of wheels and circular designs. There were circular and rectangular fire altars. Making circular designs required knowledge and application of mathematics. Evidence shows that the engineers and designers had this knowledge. *Many of these sites predate Egyptian and Babylonian monuments.*

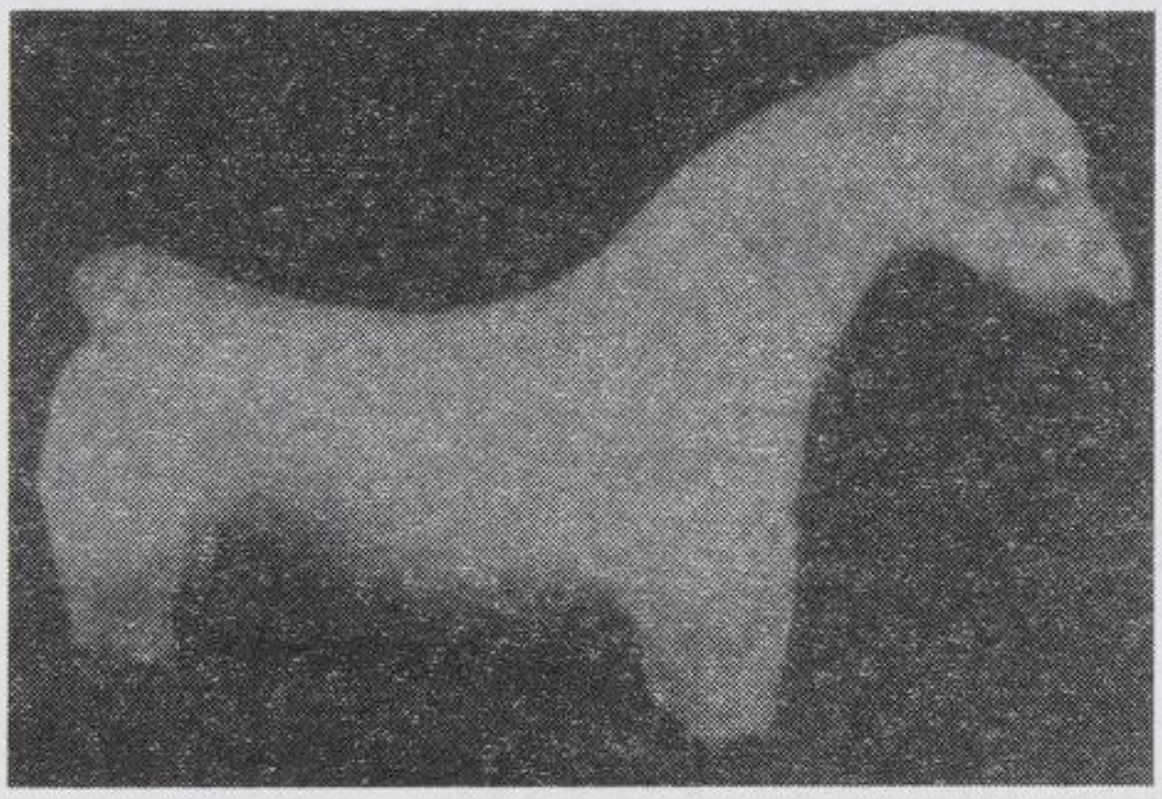
"Further to the use of circles in 'decorative' design there is also an indication of the use of bullock carts, the wheels of which may have had a metallic band wrapped around the rim. This clearly points to the possession of knowledge of the ratio of the length of the circumference of the circle and its diameter, and thus values of π."[34]

Origin of Games such as Chess and Dice in the Region



A set of "chessmen" from Lothal





A horse figurine found at Mohenjodaro

Horse bones from Surkotada (Kutch)

The above relics of chess and dice clearly prove that these games were invented in India. Ancient literature also refers to these games as *Chaturangni*[35] (four winged army for chess) and *Chousar* (the dice game).[36]

Chronology Needs to be Readjusted

- *Rig Vedic* age begins around 4,500 B.C.[37]
- Advanced phase of Indus-Sarasvati period begins around 4,000 B.C.

- Highly complex urban, industrial civilization reaches its peak around 3,500-2,500 B.C.
- Indus-Sarasvati Civilization declines around 1,900 B.C.

These are conservative dates. With the discovery of the ruins of civilization near Gulf of Khambat (dated at 7,500 B.C.), scholars are already talking about antedating these phases. The continuous work of scientists from the fields of ecology, geology, archeology, marine archeology, genetics, natural history, and paleobotany may bring sufficient evidence to throw these dates off by centuries and millennia.

I-SVC Language Group and Other Languages in Ancient India

Several languages and dialects were spoken by the people. Sanskrit and Mleccha were predominant languages. Recently, scholars in the field of linguistics have deciphered the Indus script from the imprint on the seals etc. N. Jha and N.S. Rajaram have come up with these observations:

1. Indus script is a complex writing system.
2. It is a combination of syllables (without vowels) and picture symbols.

One of the most important finds from these sites is the discovery of the Bakhshali Manuscript. This manuscript has given us important information not only about the knowledge and use of mathematics in that remote period of Indian history but it also tells us about the language and script of the people.

"The Bakhshali Manuscript was written on leaves of birch, in Shaarda characters and in Gatha dialect, which is a combination of Sanskrit and Prakrit."[38]

Who were the People Living in these Valleys?

These were the Vedic people spread all over the river valleys of the subcontinent. Several languages and dialects were spoken by the people living in these river basins and several tribes under local chiefs continued to coexist along with the established kingdoms. As in India of today, in ancient India, people had different life-style and diverse ways of offering prayers. Some were urban settlements, many were rural and the settlements along the coast line were trading cities.

While there were flourishing cities in the Indus-Sarasvati basin, tribal societies existed side by side. Some of these were urban and some were kingdoms. Names such as Nagas, Gonds, Asuras, Bhils, Mundas, and Hores

are mentioned in the post-Vedic literature. Vedic settlements were in all parts of India. Languages used were not derivatives of literary Sanskrit. Secondly, it was not Tamil either.[39] The south Indian texts do not mention that their ancestors ever lived in the Indus valley. Several centuries later, Chandragupta II (Guptas) married the daughter of the Nagas. So, there is plenty of evidence in the history of India of the coexistence of different languages and interaction between various tribes and societies.

Cavalli-Sforza's conclusion is, "Taken together, these results show that Indian tribal and caste populations derive largely from the same heritage of Pleistocene southern and western Asians and have received limited gene flow from external regions since the Holocene."

In his book *Out of Eden*, Stephen Oppenheimer emphasizes homogeneity of the South Asian population for at least 70,000 years.

Recently Anthropological Survey of India has been studying the skulls found in this area from Kashmir to Gujarat. Specifically, after the anthropological study of the Cephalic index of the skulls found at the sites at Mohenjodaro (in Sindh), Harappa (in Punjab) and Lothal (in Gujarat), the scientists have found that the people of this valley have similarities with the present day people living in these areas. Their conclusion is that, "the population of the widespread region has remained more or less stable since Harappan times."[40]

These conclusions emphasize a few things:

a. The idea of displacement of an originally different 'non-Aryan' Harappan population by the present day Aryans is a myth ***without any proof***. 'Aryan nomads' is a fabrication and their assault on the Indus people is a myth as well.

b. Many of the people of Gujarat are Yadus and these are mentioned in the ancient Vedic and post-Vedic texts. Harappans are like the people of Punjab and the people of Mohenjodaro are like the people of Sindh. Belonging to a common origin, all three existed then, they exist now.

c. Indus and Sarasvati civilizations were more advanced phases of the Vedic civilization.

Thus, Harappans were not only part of the Vedic society but actually the Vedic age ended with the decline of the Harappan civilization.

What Led to the Decline of the Civilization?

Several factors were responsible for the decline of civilization in the Indus – Sarasvati basins such as geological, paleoecological, and changes in rain

pattern. Geologist Anil Gupta at the Indian Institute of Technology, Kharagpur, and several other Indian and American scientists have analyzed monsoon behavior over thousands of years through geological studies. They connected their conclusions with the archeological findings. These scientists believe that changes in the Indian monsoon over the past 10,000 years may explain the spread of agriculture in the subcontinent as well as the rise and fall of the civilization that produced Harappa.[41]

"The marine records suggest that 10,000 years ago, the monsoon over the subcontinent was much stronger than it is today," Anil Gupta said. Some other independent studies have shown that 10,000 years ago, the Ganga and Brahmputra carried double the amount of sediment they do today. "This, too, indicates a stronger monsoon." Gupta said.[42]

The earliest settlement in the subcontinent with the evidence of agriculture and domestication at Mehrgarh, now in Pakistan, is about 9,000 years old. This coincides with the peak intensification of the monsoon, the study said. The Arabian Sea sediments and other geological studies show that the monsoon began to weaken about 5,000 years ago. The dry spell, lasting several hundred years, might have led people to abandon the Indus cities and move eastward into the Gangetic plain, which has been an area of higher rainfall than the northwestern part of the subcontinent. "It's not high temperatures, but lack of water that drove the people eastward and southward."[43]

Climatically today, these regions are arid and dry savanna and some parts are deserts.

The gradual decline in trade took away the urban/industrial aspect of their life. Civilization shifted from urban to rural in character. The southern part of the civilization lies in the earthquake zone which must have caused shifting of the tectonic plates. The shortage of water due to the drying of Sarasvati River and change in the course of its tributaries must have led to the decay of these towns and migration of people eastward. Many historians at first believed that the Aryans from the Ganges basin must have destroyed these towns. Since none of the skeletons found show unhealed wounds that theory is just a theory. Secondly in the Vedic literature river Sarasvati is mentioned and revered, Vedic period precedes Indus-Sarasvati Civilization.[44] Sarasvati dried up around 1900 B.C. Most of the historians agree that the geological events led to the migration of the people and to the decline of this civilization.

"The transition from one culture to the next was gradual as seen at Harappa, and there is no evidence for invasions by outside communities

such as the so-called Indo-Aryans. Although some scattered skeletons were discovered in the later levels, they do not represent warfare or raiding, and there is no evidence that the site came to a violent end. Various factors contributed to the decline of Mohenjodaro. On the one hand, changes in the river flow patterns and correspondent widespread flooding would have disrupted the agricultural base, but did not destroy the city directly."[45]

As the excavations continue, more interesting facts are coming to light. The continuity and shifts to the east highlight one major point—that the IVC was not an isolated civilizational episode with the rest of the subcontinent tribal, uninhabited or uncivilized.

Michel Danino sums it thus:

"Finally, it is increasingly recognized that there are strong links between the Veda and the Harappan culture: We find statues and seals depicting *yogis* and yogic postures, we find a Shiva-like deity, worship of a mother-goddess, fire altars, all of which are suggestive of Vedic culture. Harappan symbols include the *trishul*, the *swastika*, the conch shell (also used as a trumpet), the *pipal* tree, all of which are central to later Indian culture. The *Rig Veda* itself is full of references to fortified cities and towns, to oceans, sailing, trade and industry, all of which are found in the Harappan civilization.

Studying Harappan town-planning, R. S. Bisht, director at the Archaeological Survey of India and excavator of the well-known site of Dholavira in the Rann of Kutch, finds that city "a virtual reality of what the *Rig Veda*, the world's oldest literary record, describes." S. P. Gupta, Chairman of the Indian Archaeological Society, agrees: "Our analysis shows that the Indus-Sarasvati Civilization reflects the Vedic literature."

Summary

In the absence of any evidence that the IVC and Sarasvati Civilizations were separate or the latter replaced the former, one can safely conclude that the two were a part of the continuous and contemporaneous civilization in the North West of India moving eastward as the geographical changes took place. Jagmohan[46] sums it up thus, "If all that I have said is viewed in entirety, this is the picture that will emerge: the period 6,500-3,100 B.C. saw the growth of pre-Harappan/Indus-Sarasvati civilization, corresponding broadly to the times when the *Rig Veda* was composed; that during the period 3,100 to 1,900 B.C., the Harappan/Indus-Sarasvati Civilization prevailed and these were the times when the hymns of four

Vedas were compiled; and that 1,900-1,000 B.C. was the time of the late Harappan/Indus-Sarasvati civilisation which saw the decline and ultimate disappearance of the surface water of the Sarasvati, forcing the people to move eastward towards the Gangetic plain."

New Words to Learn

- Decipherment – an act of figuring out a code or the ancient symbols and languages
- Excavations – Digging and uncovering old artifacts of ancient civilizations
- Fossils – hardened remains of bones or plants belonging to the ancient times which are preserved in the rock formations.
- Hieroglyphics – picture symbols sometimes combined with syllables as a form of writing

Concepts to Understand

1. Based on the new evidence, the period of Indus-Sarasvati Civilization is considered to be between 4,500-1,900 B.C.
2. Excavations yield new evidence which helps historians in revising the chronology of various phases of history.
3. The most advanced period of I-SVC is between 3,500 B.C. to 1,900 B.C.
4. This civilization can boast of many modern features of urban planning and public health.
5. The decline of the civilization was due to the drying up of the rivers.
6. There is no evidence that invasions were the cause of its decline.
7. The sites along the banks of the dried up rivers should be considered as heritage of mankind and developed as museums.
8. From the literary point, this period is also called the post-Vedic period.
9. Industry, trade, farming, urban planning, arts and crafts, dams and reservoirs, all indicate that the people in that remote past were very advanced.

Questions

1. What is a river basin? Looking at the map of Central Asia which other river basins sustained early civilization?

2. What were the major factors responsible for the decentralization, de-urbanization and the decline of civilizations of the late I-SVC period?
3. What is a population shift? Why do people migrate from one area to the other? Have urban complexes replaced agricultural land in your area? Give some examples.
4. How do artifacts tell us about a civilization? (Teachers may use pictures of artifacts.)
5. What were the artifacts found on the sites?
6. When the rivers change their course, what happens to the land? When the rivers dry up what happens to the people?
7. Study the paragraph under the heading Burial Places. Do you think, as more evidence pours in and is dated; we may be in a position to predate the history of India to much earlier dates?
8. What are the significant contributions of Indus-Sarasvati people to the civilization of mankind?
9. Study and discuss the use of the implements shown in the picture of tools in the chapter and indicate similarities to some modern day tools used even today.
10. From the study of relics, list some common customs and practices followed by Hindu society even today.

Enrichment Activity

1. Here are some excerpts from a newspaper report on the new finds made during recent excavations. This item is a primary source of history.

"Cache of seal impressions discovered in Western India offers surprising new evidence for cultural complexity in little known Ahar-Banas culture, 3000-1500 B.C."

The news item is about the discovery of 100 seal impressions during the excavations in the ancient town of Gilund in the Indian state of Southern Rajasthan.[47]

2. What is a primary source of history, what is a secondary source of history? Readers may go back to section 1, chapter 2 for an answer.

   Based on the following excerpts, discuss the similarities between Ahar-Banas culture and the culture of Bactria-Margiana Archeological Complex (BMAC).

Find Provides New Insight into Widespread Trade, Cultural Exchange in the Region

"Excavating at the ancient town of Gilund in southern Rajasthan, India, one of the largest sites of the little-known Ahar-Banas culture, archeologists led by teams from the University of Pennsylvania Museum and Deccan College, Pune, India have discovered a bin filled with more than 100 seal impressions, dating to 2100-1700 B.C. Dr. Possehl and his collaborator Dr. Vasant Shinde of Deccan College, Pune, India, and their teams made-up of professionals and students from around the world, have conducted excavations at Gilund over four seasons, beginning in 1999. The team has been working to understand the social life, history and agricultural developments of these peoples, separated by about 200 miles of largely mountainous and desert-like regions from the powerful Indus Civilizations that had its peak period in 2500-1900 B.C."

"They came upon the bin with its seal impressions in 2002. The bin was in a large building that has not yet been completely excavated but is known to be larger than 25 x 60 feet, composed of parallel walls of well-made sun-dried brick. The size and nature of the building suggests that it was a "public" structure, with walls ranging in width from about 30 to 49 inches, and spaces between them were about the same width. The presence of the bin within the space between two of the walls, and other signs of occupation, including pits and living debris, indicate that the long, narrow "rooms" were used for storage. According to Dr. Possehl, even though the exact nature of the commodities stored in the warehouse is not known at this time, it is possible that valuable processed items like *ghee*, oil and textiles were some of the items.

Variety of imprints on the seals indicated many different classes in the society. Seals might have showed the status of a person. These were also used to mark goods for trade."

"There is a similarity between the seals from another cultural group archeologists call the Bactria-Margiana Archeological Complex (BMAC), from as far away as Central Asia and northern Afghanistan, 1,000 miles to the northwest."

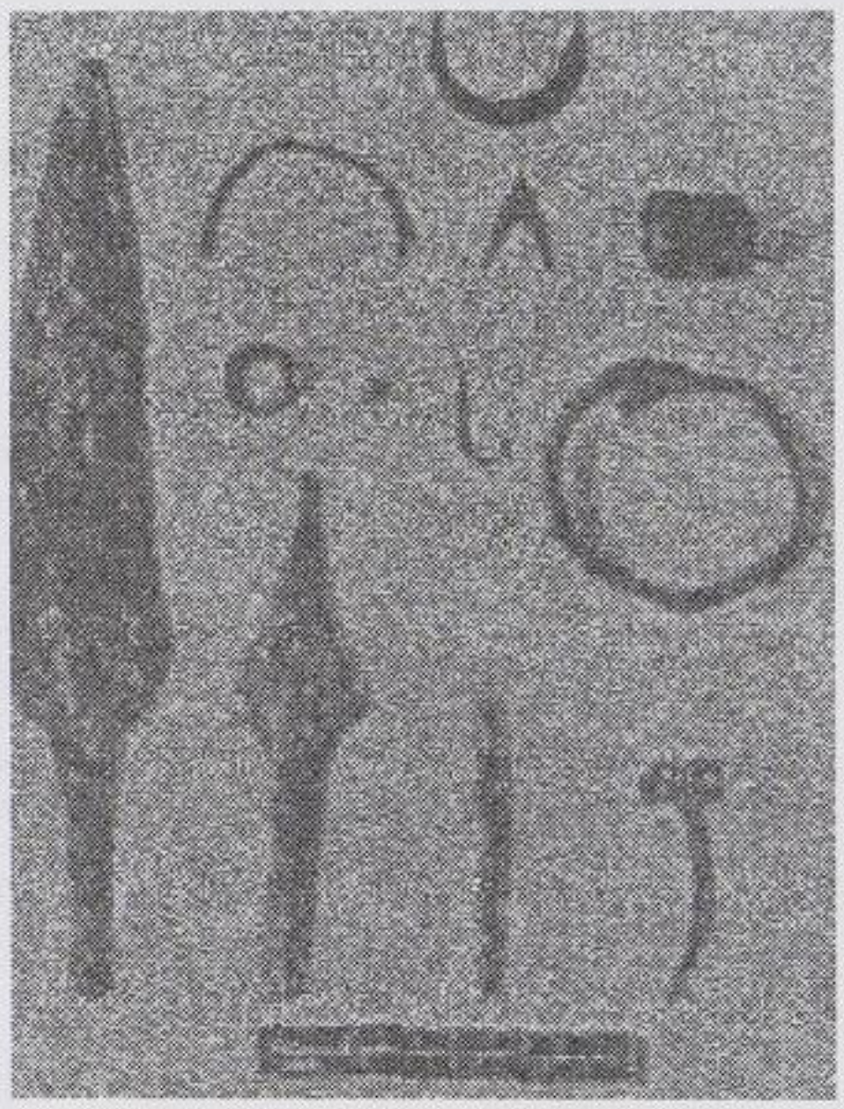
This quote from Dr. Possehl gives us interesting ideas about the advanced civilization in the interior of the subcontinent India, "Gilund is providing us with good evidence for a stratified society that had wide-ranging contacts between the peoples of western India, Pakistan, Afghanistan and Central Asia just at the end of the third millennium and the beginning of the second millennium. Archeologists have known for a

number of years that the so-called BMAC peoples were in Sindh and Baluchistan, as well as Iran, and even as far south as the Arabian Gulf. This, however, is the first time that such evidence has come from so deep within India, significantly expanding the geographic picture of a critical period of regional change, when the once-powerful Indus Civilization is undergoing a process of transformation. Learning more about how cultures like the Ahar-Banas and BMAC interacted with the Indus Civilization may help to broaden our understanding of the rise, and fall, of great civilizations of the world."

Critical Thinking Activity

1. During excavations, the following items have been found at various sites, how do they tell a story? From the list below, students may pick up two or three relics to discuss the fabric of society and life in those days.
    - Artifacts – coins, inscriptions, figurines, seals, ruins of buildings, carvings on the potteries, fossils of crops, jewelry, hieroglyphics-writing system, other relics.
2. Map Study
    - Students may study the maps, given in this chapter and discuss trade between Ancient India and Western Asian countries. Students may also list some of the sites and indicate which present day state has these sites. Also students may study the two maps and show rivers for at least five sites selected from the above map.
    - Study the map of Ancient India[48] given at the beginning of the book and list the kingdoms in the basins of seven rivers in the West Indian region.
3. Going up from the delta of Sarasvati River, which cities would you cross? Students may name various rivers and the basins where this civilization flourished.
4. Linking Past to the Present:
    - How do maps of cities change? How does the coast line of countries recede inland? Students are encouraged to use the example of New Orleans and tsunami disasters to suggest ways to stop coastal disasters.
    - What are the natural causes of the decline of a civilization ? (Students may refer to tsunami and Katrina).

- Using a blank map, students may show some rivers with a different course, what would be the effect of these changes on the life of people of those regions?
- There was an earthquake in 2005 in the northwest region of Pakistan and India. Is it possible that some of the rivers might gradually shift?
- Meteorologists have discovered that the melting of polar caps is causing more and more intense sea storms. How does global warming affect the coastal erosion? A news report states that about 10 feet of coastal land including the village of Shishmaref is washed away by the sea storms in the state of Alaska, USA. Suggest a few solutions to reduce global warming.
- Write a two page proposal to encourage 'Travels around Lost Cities, A Lost Civilisation and a Lost River'. Give at least three suggestions to promote further research and tourism.
- Student may study the following picture of the tools and identify them. They should compare these tools with the modern day hand tools still in use in several countries and regions.



5. In the light of the modern emphasis on preserving mankind's heritage, evaluate the following resolution and discuss its merits, also suggest how it can be implemented:

During *Akhila Bharatiya Itihasa Sankalana Yojana* (ABISY) conference from Nov. 17 to 20, 2006; a Sarasvati *Darshan* exhibition was unveiled and all the 450+ delegates from all parts of the country, adopted a unanimous resolution that all archeological sites along Vedic River Sarasvati should be fully explored and excavated to document the heritage of *Bhartiya* (Indian) civilization and culture.

6. "Truth is eternal but knowledge is changeable." In the light of this statement students can discuss how new information is pouring about the older civilizations and is forcing us to revise history written in the last three centuries.

Sources

There is literally tons of material on the subject most of it pointing to the conclusions discussed in the above chapter. Some of the books, links and websites are:

- S. Kalyanaraman, *Sarasvati,* seven volumes
- N.S. Rajaram, *Sarasvati River and The Vedic Civilization*
- http://www.harappa.com/har/har0.html
- www.harappa.com.(JM Kenoyer's site)
- Research paper by Madella and Fuller 2006, "Palaeoecology and the Harappan Civilisation of South Asia – A reconsideration", *Quaternary Science* Reviews, vol. 25, pp. 1283-1301
- Gupta, R. C. 'The Chronic Problem of Ancient Indian Chronology', *Ganita-Bharati*, pp. 17-26, 1990 - 'Highlights of Mathematical Developments in India', *The Mathematics Education,* pp. 131-38, 1986

Endnotes

[1] All the sites- numbering over 2500 are not shown on the map.

[2] V.S. Wakankar led a multidisciplinary team of experts on a long exploration along the dried river bed from Himalayas to Rann of Kutch, India

[3] Recommended reading for more information – *Vedic Sarasvati: Evolutionary history of a lost river of Northwestern India* edited by B.P. Radhakrishna and S.S Mehr, published by Geological Society of India

[4] *Pralaya* means deluge.

[5] Source: *The Riddle of India's Ancient Past - An Overview of the Aryan Problem* by Michel Danino

[6] Italics are mine for emphasis

[7] Jagmohan was the Tourism Minister during the NDA government. These are the excerpts from his letter – dated May 7, 2006. The letter, 'A Search for our Lost Cities' was addressed to the Prime Minister of India. Source; http://www.hindustantimes.com/news/181_1692583,0035.htm

[8] Darshan Lal Jain, President of Saraswati Nadi Shodh Sansthan

[9] All these dates are still tentative.

[10] For more details students may refer to *Encyclopedia Britannica* (2003 edition), vol. 21, pp. 28-40

[11] Source: S. Kalyanaraman

[12] Courtesy: Dr. B.B.Lal

[13] Sorath is the ancient name for Saurashtra.

[14] Possehl 1990, p.268

[15] Walter A. Fairservis 1991

[16] *Finding Forgotten Cities: How the Indus Civilization was Discovered* by Nayanjot Lahiri, 2005, Delhi

[17] Source material is from the findings of Archaeological Survey of India. See article- 'India Adds New Dimensions to the Indus Civilization' by B.B. Lal printed in WAVES Publication, *Revisiting Indus –Sarasvati Age and Ancient India* edited by Sharma and Ghosh.

[18] http://www.hindu.com/2006/02/21/stories/2006022103711400.htm

[19] http://www.hindu.com/thehindu/holnus/001200602201742.htm

[20] All photos of the seals, figurines and maps courtesy of Dr. S. Kalyanaraman

[21] *Yajur Veda* section 3, chapter 25, verse 18-19

[22] Also known as *Ashvattha* tree

[23] Picture courtesy: S. Kalyanaraman

[24] Source: Ian G. Pearce, 'Indian Mathematics: Redressing the balance'

[25] Source: http://www.hindunet.org/saraswati/civilizationmapsimages/79.jpg

[26] Source: A recent paper on latest SSVC archaeology by B.B. Lal

[27] Source: S. Kalyanaraman

[28] Bhishma Publications, vol.I, pp. 475-78

[29] Source: S. Kalyanaraman

[30] The currently known inch was devised much later and is shorter than the Indus inch.

[31] Source: S. Kalyanaraman

[32] Source: Ian G. Pearce, 'Indian Mathematics: Redressing the balance'

[33] Source: quoted by Ian Pearce, R.C. Gupta has several published articles about ancient mathematics.

[34] ibid

[35] *Shatranj* (the common Urdu word) is derived from the Sanskrit word *Chaturangni.*

[36] Pictures courtesy: Dr. S. Kalyanaraman

[37] New evidence which is continually emerging points out that the Vedic Age began even earlier than 4500 B.C. According to S. Kalyanaraman, "There is a burial of a woman at Mehrgarh with wide cut s'ankha bangle dated to 6500 BCE. The reference to *s'ankha* cutter (*s'ankha kr.s'aana*) occurs in the *Rig Veda* and *Atharva Veda.* The *s'ankha* industry continues even today after 8500 years."

[38] Ian G. Pearce, 'Indian Mathematics: Redressing the Balance'

[39] One of the assumptions of the Aryan Invasion Theory is that the people living in ISV basin were Dravidians who were defeated by the nomadic Aryans. See section 2, chapter 8 for more evidence to the contrary.

[40] Source for further studies- *Human skeletal remains from Harappa* by P. Gupta, P. C. Datta and A. Basu (Memoirs of the Anthropological Survey of India, no. 9, 1962)

[41] Source: The study of these scientists was published in the journal *Current Science* and reported by G.S. Mudur in *The Telegraph*, April 30, 2006. http://www.telegraphindia.com/1060430/asp/frontpage/story_6164487.asp

[42] ibid

[43] ibid

[44] Geologists have found that the river Sarasvati dried up around 1900 B.C. But at substratum level it is still trickling.

[45] http://www.mohenjodaro.net/indusdecline.html "Mohenjo-Daro – An Ancient Indus Valley Metropolis" by Jonathan Mark Kenoyer, University of Wisconsin, Madison

[46] Jagmohan was the Tourism Minister during the NDA government. These are the excerpts from his letter – dated May 7, 2006. The letter, 'A search for our Lost Cities' was addressed to the Prime Minister of India. Source; http://www.hindustantimes.com/news/181_1692583,0035.htm

[47] For more details about this discovery and report by G. Possehl and V. Shinde of India, check the link for the article in the bibliography at the end of the book.

[48] See the map of Ancient India at the beginning of the book.

Chapter 11

Vedic Religion – Hinduism

Vedic Dharma – commonly known as Hinduism has a long history showing continuity, evolution and growth. It is the third largest religion of the world practiced by a billion plus people. This chapter will discuss the key points of *Vedic Dharma*.

Is *Vedic Dharma* an *Ism*?

Ism by definition is dogma or a doctrine. The faith traditions and beliefs of Hindus cannot be translated as *Ism* or as a religion, because these traditions have a long history of growth, analysis, redefinitions, rejections and affirmations. Therefore the first thing to correct is the name itself—it is Hindu *Dharma* and in this text, we will use the word Hindu *Dharma*.

Vedic Dharma (translated as, religion, by the western writers and thinkers) defies a simple definition. Every attempt at definition is found unsatisfactory because each definition emphasizes only an aspect of the whole. As *Dharma*, Hindu *Dharma* is a diverse collection of ideas about the Creator, the creation, the living entities, Universe and mans' ideal role in it in various capacities. The nature of existence and how to improve it are discussed in the *Upanisadas* as dialogues between the teachers and their disciples. Therefore an essential part of *Dharma* is Specific (*Vishesha*) *Dharma* which is more of a life-style, duties and values often specific to time and place. Its most cherished aspect is the explanations offered about the cosmic laws and the eternal traditions. The followers of *Vedic Dharma* themselves never found it necessary to define or encompass their *Dharma*. It is termed as universal, eternal tradition or *Sanatana Dharma*. It is not attributed to a founder or to a certain time in the history of mankind. *Dhr* is to hold and therefore, that which sustains the creation and the earth is *Dharma*. *Dharma* means righteous conduct, a set of duties for human beings to fulfill in a given circumstance or in a given role in society. *Dharma* thus establishes a defining role for the ideal relationship between the root world, the living entities and the Creator.

It also tries to explain the mysteries of nature, how to relate to nature and how to use it to the greatest benefit of the society while getting a better understanding of one's own reality and purpose of life. In Hindu *Dharma*, finding goals and designing one's role is a matter of free enterprise. A Hindu can choose his own Guru, a *Deva* or a temple. He can also decide not to belong to any teaching tradition or any temple. The sages who have added to the *Sanatana* (eternal) thought have guided their disciples (and through them the people in general) towards their duties. Extensive dialogues between the Guru and the students helped the students to understand their inner self through *enquiry after truth*.[1] It is therefore true that *Vedic Dharma* has no organization limited to a race, geographical boundary or a sect. It has no specific beginning and is timeless. The western readers of Hinduism feel baffled by a lack of hierarchy of priests binding people to a dogma or a belief system.

To quote David Frawley, "There has been an attempt to fit Hinduism into the mold of Western religions, which it does not resemble. Those who attempt this generally criticize Hinduism for not living up to a standard it never had, expecting it to have a clearly defined dogma of one God, one representative of Him and one book."[2] Hindu thought is the result of a continuous search for truth, emphasizing the evolution of one's own consciousness. Nothing is deemed as final, finite or absolute. It indeed seems a complex religion, if an overview of its various aspects are not presented or understood by those who compile Indian history. The sum of partially presented facts will not make a whole.

Hindu Belifs and Ideas

- The Creator – *Brahm*—the Supreme Reality
- Creation/Cycles—Science and *Vedic Dharma*
- *Prakriti*—Science and *Vedic Dharma*
- Self

Governing principle
Dharma
The righteous interaction between these elements and realities of *Brahmand* (universe)

Dharma: *Dharyati iti Dharma*

Righteous conduct that sustains the universe is *Dharma*

Two Aspects of *Sanatana Dharma*

Samanya (Common) *Dharma*

- That which is eternal
- Examples
  - Beliefs
  - Practices
  - 4 Aspects
- Fourfold *Purusharatha**
- *Dharma das lakshnam***
- Fourfold *Sadhana*

Specific (*Vishesha*) *Dharma*

- That which is relative
  - Bound by time, space, and circumstance
  - (*Desh kaala nimit*)
- *Varna Dharma*
- *Raj Dharma****
- *Matri Dharma*****
- Social practices, laws: *Varna* and *jatis*

What happens when we confuse the two?

**Purusharatha* means motivation for action

***Ten ways of observing *Dharma*

****Dharma* of a King; in this context *Dharma* means duties.

*****Mother's *Dharma*; here *Dharma* means duties of a mother.

Here is an Overview of Hindu *Dharma*

In essence, *Vedic Dharma* is a monotheistic religion—a belief in all pervasiveness of *Brahm/Brahman* (used for the Creator or cosmic intelligence), the divine consciousness in the universe, the Supreme Being, often labeled as God. Here are two quotations to prove it, " That which they call *Indra*, *Mitra*, *Varuna*, and *Agni*, as also the celestial beautiful feathered eagle – that which is One, sages name it variously."[3] This might seem the basis of any faith that is why a *Sanatana Dharmi* never found himself in competition or in conflict with other religions. He had always been in Unity with all the living things in nature "He whom the Shaivites worship as Shiva, whom the Vedantins call Brahma, whom the Buddhist call Buddha, whom the *Naiyayikas* call the Creator, whom the Jaina call the *Arhat*, whom the *Mimansaks* call Karma, may that Vishnu, the Lord of the three worlds, grant you the object of your desire."

Rig Veda 6.45 says: "O'man! Praise God who is one and one only and who is the omniscient and omnipotent Lord of all beings."

Commenting on the hymn *Rig Veda* 10, 121, Max Muller[4] says, "I add only one more hymn, in which the idea of one God is expressed with such power and decision that it will make us hesitate before we deny to the Aryan nations an instinctive monotheism." Then he gives translations of several verses emphasizing this point of monotheism in Vedic Hindu thought.

Some of the Basic Beliefs are the Following

a. Vedas teach that there are three attributes given to the world by the Supreme Being: the world exists, it is conscious and it is attractive. The names and forms are given by the human beings.[5]

b. Firstly, Hindus believe in the dynamic motion of the cosmos (energy sources). Nothing stays static, all matter keeps changing at different speeds, therefore that which begins must end and that which ends must have a new beginning. Things evolve in different shapes and different shapes evolve in different patterns. Three things are there then—the universe is not the result of a feat of creation, it came into being and kept evolving at the speed with which it is energized by the cosmos called Divinity in *Santana Dharma*.

c. Secondly as the matter keeps changing, everything remains constantly in a fluid state, hence the *Vedantic* saying, "*Jagat Mithya*" meaning "The World is an illusion". The word *Jagat* (world), literally means, that which exists and is in motion.

d. Thirdly as each living being acts and interacts with other living beings, it causes a chain reaction of changes around and elsewhere which is called the law of Karma, (action and reaction). Karma lays down the laws of moral causation; Vedantins call it the "*Karnam Sharira*". Karma differs from person to person as each person sees and perceives reality differently according to his own culture and past experiences (even of previous births). Generally speaking, one may act in any of the three ways: he may be a good, ignorant or energetic person according to his innate nature. Three qualities (*Gunas*) characterize individuals, societies, and nature itself. The Vedas provide a detailed explanation of one's temperament, behavior, perceptions and consequent actions. They also provide guidelines for achieving happiness and peace which are very important to a Hindu and one can achieve these by creating a balance between one's physical, mental and spiritual growth through Yoga and meditation and by following the righteous path.

e. Hindus believe in reincarnation and the law of Karma. Reincarnation means that life force—the soul is undying, only the gross body dies

and the soul is reborn as another living entity. Both matter and consciousness are indestructible; they only go through transformation or what we may call recycling. According to one's deeds, one is born again and again continuing the evolution of his consciousness, reaping the benefit of his past deeds and sowing the seeds for the next life. This cycle is interrupted when the consciousness merges in the collective consciousness. This state is called *Moksha*. The Buddhists call it *Nirvana*. The law of Karma means that every action brings a reaction which affects not just us but the whole universe.

d. Appreciating unity in the Nature, a Hindu respects all living beings. A Hindu reveres divinity in every form—male, female even an animal form. Since the entire creation is based on the dual aspect – female and male, the Creator too has a dual aspect. Shiva depicted as Ardhnarishwara (meaning half male and half female) also reflects this belief.

e. There are four goals of life: righteous conduct (*Dharma*), earning wealth (*Artha*), desire fulfillment (*Kama*) and liberation from conflict and negative feeling such as fear, anger, greed, anxiety etc. (*Moksha*). Then the righteous conduct has ten signs (*Lakshnam*).

f. Among other things, the purpose of *Dharma* is given in the following prayers in the *Rig Veda* thus,

   - Give free play to our bodies;
   - Give wide space for our homes;
   - Give full scope to our lives.

Thus, a Hindu seeks space, width and release from anguish and conflict; together these are termed as *Moksha*.[6]

Hindu Vision of the Self and the World

a. Hindus have a tradition of tolerance. They are tolerant towards variations in faith. *They may find other doctrines inadequate but not wrong.* Therefore, a Hindu being a fundamentalist or a fanatic is an anachronism. Hindu *Dharma* teaches man to treat the whole world as one family: *"Ayam nijeh proveti laghu chetsaam; udar charita namuit Vasudhaiva kutumbkam"*. Meaning, this is mine and that is his, is the contention of the petty minded, a magnanimous person treats the whole world as one family. All ceremonies and prayers begin with reverence, devotion and surrender and end with prayers for everyone's health, peace, success and happiness.

b. As the sages visualized the relation between the *Brahmand* (Sanskrit word for the universe) and man, they laid down rules and guidelines called *Rita*[7] (Sanskrit word for rules based on balance and justice). They composed hymns and verses for collective ceremonies, prayers and meditation. A religious Hindu would base his karma on *Rita* and seek purification by *yajna* (a ceremony to surrender one's ego and desires, usually at the fire altar). The sacrificial ceremonies did not involve animal sacrifice. The word *Swaha* at the end of a *chant* meaning offering of the self to the *Devas* is a proof of this. A simplified *Yajna* ceremony is performed in Hindu temples even today.[8] Such sacrifices were accompanied by charity and followed by meditation. All these actions aim at self purification, self realization and oneness with the universe. Those who imparted spiritual learning were also required to do *tapas* (austerity).

Devas in the Hindu prayers are the natural phenomena and the essence or the force behind them is called *Devi* or the *Shakti*. In this way, right from the *Rig Vedic* age, the Divine is seen both as a male and a female. *Deva* is defined thus, "one who confers some advantage on us, can illuminate things, explain or throw light upon them and that which is the source of light is *Deva*."

Shathpatha Brahmana counts thirty three *Devas*, they are: 8 *Vasus* (shining planetary bodies), 12 *Adityaas* (12 parts of the earth's revolution around the sun), 10 *Praanas* (the air that is inhaled undergoes ten changes in the body), Indra (the atmospheric forces and phenomena), Prajapati (the regulating force in the nature) and *atman* (the consciousness). We can count the elements, *Maruts* and *Ashvins*, mothers and fathers, teachers and the guests as *Devas*. In this way, for Hindus there are countless *Devas*. *When Devas are wrongly translated as gods and goddesses, the misconception is allowed to creep in that Hindus worship millions of gods.*[9] *Devas* are countless energies and aspects of *Brahm* – the Supreme Being. Hinduism is a monotheistic religion offering a vision of diverse finite parts in the Infinite.

Hindu *Dharma* as practiced today has evolved during several millennia.

The Phases of Growth

First Phase

In the earlier hymns and ceremonies, prayers are offered to the elements and illumined bodies in the space, referred to as *Devas*. Although the prayers are offered to *Devas*, all prayers in the *Yajnas* are directed to *Brahm*.

Later texts such as the *Upanisadas* contemplate on *Brahm* and the mysteries of the universe. The students thus engaged learn the path of spirituality and how to connect with *Brahm* and the society in harmonious ways. *Brahm* is without form, without traits. It is pure energy and is the all pervasive intelligence.

Second Phase

Brahm is given attributes as the Creator and the regulating force. Later, He is given the form of Vishnu and with Him are Prajapati and Mahesha. Trinity is thus the three functions of *Brahm – Prajapati* as the Creator, Vishnu as the preserver and Mahesha as the destroyer or the transformer.

Also, the artists visualize and express Divinity in art forms—giving these forms names and assigning them functions. To these forms Hindus offer reverence. Many people do not accept these symbols as adequate and they move away from *Moorty Pooja* (worship of the forms), but many who need symbols for focus and direction offer prayers in front of these pictures and symbols. *Devas* and *Devi*s are given forms according to their role in the universe. Some of the beautiful art work forms the basis of Hindu culture, eternal traditions, philosophic explanations, forms of worship as also the explanation of God's various roles and the effects of these roles on us.

Third Phase

In this phase, many seers conceive of the incarnations of Vishnu. To those conceptions, artists give beautiful art forms. Today these statues and symbols form an essential part of the temples providing focus for the devotees. Many Hindus do not believe in incarnations of Vishnu. *Devas* had no incarnation. They are names of natural phenomena and are finite parts of the infinite *Brahm*. They are eternal, timeless and deathless.

Statue of Trimurti at Elephanta Caves

Symbolism in Hinduism

In the beginning most of the prayers were offered to the Creator and the natural phenomena without using any symbols. In *Yajna* ceremonies the prayers were offered to the *Devas* and the Creator in the presence of fire. Fire altars were used by the inhabitants of both Indus-Sarasvati basins as well as Southern India. The seals showing *Pashupati* (Shiva) and terra-cotta figurine of Shivalinga have been found from the ruins of ancient cities of Indus-Sarasvati region.

Later, the prayers included glorification of these *Devas*. The form and symbols were still not used. Some time before King Rama, the Creator was given a form and Vishnu's statue was used. Vishnu literally means that which pervades everywhere. Vishnu with three functions as the creator, the preserver and the destroyer was seen as *Trimurti*. Shiva is also visualized as Trinity.

By this time artists also sculpted Shiva as *Nataraja,* and *Ganapati,* popularly known as Ganesha. Vedas also have hymns related to *Rudra,* another name for Shiva. The framework of today's Hindu practices thus emerged slowly. The concept of the Creator from being formless (just cosmic intelligence) to the formless One with numerous glorious attributes and then to *Brahm* with form, attributes and functions gradually shaped Hindu thought and practices. Vast literature reflected all these changes.

The symbols are elaborate, statues are ornately dressed and pictures of *Devas* show several arms and hands. Each arm or hand stands for different functions of the power being worshipped. Four arms denote blessings and powers; one hand may have weapons, it denotes the power to destroy, another hand has scrolls or rosary of beads denoting learning and the hand with the lotus denotes the power to create.

Shiva

Shiva literally means that which is auspicious. Shiva symbolizes the life force – also known as *Praanas*. Shiva is worshipped in many postures. Shiva in the yogic posture is the most ancient form worshipped in the subcontinent. Shiva is also worshipped along with his consort, Parvati. A later chapter describes Shiva as Nataraja and what it stands for symbolically.[10]

Artists down the ages created amazing pieces of art using diverse art media. Though the early paintings did not survive the ravages of time and the invasions, several of the cave temples, frescoes, rock temples and bronze statues have survived. In a historical evolution spanning several millennia,

Hindu *Dharma* has absorbed many tribal traditions from all over the subcontinent. The ceremonies, customs, fairs and festivals differ from one region to another but the common themes are the same.

Holy Texts

As mentioned in section 2, chapter 9, there are four Vedas—*Rig Veda*, *Yajur Veda*, *Sam Veda* and *Atharva Veda*.

Rig Veda is a compilation of prayers, and philosophic explanations about the mysteries surrounding the nature and its creator. It is the most ancient book of mankind and has the largest number of verses any book ever had. *Yajur Veda* contains prayers related to the ceremonies and their procedures.

Sam Veda outlines the system of Indian music, and *Atharva Veda* is about the organizational aspects of life. Most of the prayers and *yajna* ceremonies performed by the Hindus today are from these books. *Upanisadas* are philosophic dialogues between the teachers and the disciples on the mysteries of Nature and *Brahm*. Then there are commentaries, books of analysis and Yoga texts. These are called *Dharma Sastras*. Sage Patanjali's *Yogasastras* and Sage Vashishtha's *Yoga Vashishtha* are the most ancient books on the subject and are still followed all over the world. Later on, the Buddhists absorbed these Yogic and meditational practices. *Manu Smriti* lays down some guidelines for Specific *Dharma*. *Bhagvad Gita* is the summary form of the Vedas.[11] It is the most widely read book among Hindus and the non Hindu scholars.

How did *Sanatana Dharma* get the name Hinduism? The name is a misnomer, because Ism means dogma and nothing in Vedic literature is of that nature. It appears that when the Persians came in contact with Bharata (later called India), they called the Sindhu river Hindu. The mountain they crossed became known as Hindukush Mountain, and the country as Hindustan. There is no mention of this name anywhere in the ancient literature. The name used was *Sanatana Dharma*—the eternal tradition of seeking the Absolute, the eternal Truth.

Summary

There is a strong belief that all living things have divinity. There is a cosmic order. Our actions set in motion a chain reaction. Even if God takes the human form, He cannot escape being bound by this cosmic order, nor can He avoid the laws of Karma and the laws of moral causation. In the chapters on the Epic age many such examples will be given. There are four

aspects of Hindu religion—*Gyaan* (knowledge), *Vigyaan* (rationale or science), worship (devotion or *Upasana*) and Karma (disciplined action in practice).

According to *Rita*, man is not a struggling worm who lives and dies and is no more. He is a divine essence with a supra physical destiny which he can fulfill through truth, sacrifice and self discipline. If a person loses track of these goals, his desires will create chaos and tensions for him. When the head of a nation loses his vision of public service, the nation is thrown in chaos and destruction. History abounds with examples of such dreadful events.

Hinduism lays down the ultimate goals of life thus:

- The most desired state of mind – *Shanti* (peace) and contentment
- The most desired reaction – equanimity
- The most desired educational end – integral humanism
- The most desired goal of life – liberation from conflict.
- The most desired social behavior – *Maryada*, meaning rectitude.

Frequently Asked Questions

Q1. Why do Hindus observe so many fasts and austerities?

Ans. Austerity also known as *Tapa* is not penance. It is a process of realignment. It is not punishment and it is also not a way of asking God's forgiveness or benedictions. Fasting is done on a regular basis for cleansing the body and to rid the body of accumulated toxins in the form of undigested food. It is also done in certain seasons. During harvesting seasons, there are so many days of fasts. Hindus often joke that when they are not celebrating life, they are fasting.

Q2. Do Hindus believe in afterlife?

Ans. Hindus believe in life after death. Death is not the end of life. The cycle of birth and death continues till the final stage of Moksha. Every being has his own path to achieve freedom from all types of pain, suffering and get back to its natural state of peace and bliss.

Q3. What is Karma?

Ans. Law of Karma (simply stated *Papa-punya*)[12] – Every good has a reaction which one may call a blessing or compensation; similarly every evil deed is followed by a series of results which are not good

for the society. Interaction of good and evil is a disharmonious state. The restoration of balance with the good and the evil in their rightful place is the reestablishment of righteous principles which is *Dharma*.

Q4. When people have their own personal *Devta*, is there any unity in Hindu religion?

Ans. Hindus worship one Supreme Being, they also recognize and worship many forces in the nature that they call *Devas* and people are free to choose any *Deva* for worship in some circumstances and some other *Devas* at another time. These *Devas* are part of the total entity of the Cosmic Energy or what we may call the Creator and there is no conflict between worship of one *Deva* or the Supreme Being. The Supreme Being is addressed by different names in different languages and in different regions of India. Hindus worship finite and the infinite.[13] The worldly life is to be lived in the way nature helps us to live and to grow which means living functionally, fruitfully, fully according to the natural laws of harmony and balance.

Q5. Do Hindus have Ten Commandments?

Ans. Hindu Ten Commandments are called *Dharma Das Lakshnam:*

Truthfulness, Cleanliness, Austerity, Control of senses, Control of mind, Acquisition of knowledge, Gaining of wisdom, Forgiveness, Charity, Purity of thought, action and speech.

Concepts to Understand

1. Nothing is static or still in the world. *Jagat* (the world) literally means—existing and in motion.
2. One should constantly evaluate one's values and goals and test them. Do they make him happy? Do they benefit the world?
3. Effort at rightful action is the basis of *Dharma*. Can we think of wrong actions by the people or the leaders as *Dharmik*, especially if these actions lead to disasters? Are they according to *Dharma*?

   Students may take two or three countries and their leaders and make a checklist as to the actions of the leaders:

   a. Are these in the interest of the country, b. themselves, c. the world, d. the environment, e. the humanity in general?
4. Chaotic, goalless or selfish actions reflect a chaotic personality. These cause unhappiness. What causes chaos in the mind? Students may give one example.

5. Balance between competitiveness and harmony within a person should be the aim. The former gives him a drive for action and the latter gives him happiness.
6. Symbolism created by artists and writers was accepted by many Hindus and those artistic images are worshipped. A visit to the temple or a picture of Nataraja with explanations quoted from Cosmos by Carl Sagan may be helpful in explaining symbolism and its relevance.[14]
7. Hinduism kept evolving through the thoughts and artistic creations all through the ages. This could only be possible if Hinduism permitted freedom to expand; add, delete and develop the ideas through commentaries and pictures in the form of frescoes, three dimensional rock carving and drawings.
8. "From time immemorial, the great aims of human endeavor have been classified in India as *Dharma, Artha, Kama* and *Moksha* roughly translated as moral behavior, wealth, worldly pleasures and salvation". (Kautilya- '*The Artha Shastra*' by LN Rangarajan) The creation of wealth was always encouraged. What mattered was how it was earned and how it was used.[15]

Questions

1. Hindus worship Lord Krishna, *Brahman*, Shiva and Vishnu at the same time. Is Hinduism a polytheistic religion?
2. What explanations does Hinduism give about the nature of the world? Does this tally with modern scientific discoveries?
3. What is reincarnation?
4. Hinduism thinks of the world as a dynamic place. How?
5. Man is neither a struggling worm nor by himself the author of this world. What is his position in the universe? Students may be encouraged to be imaginative and create their own idea of their place in the universe.
6. How does a Hindu treat the world? To what extent can Hinduism be considered a precursor of a world Government?
7. How do Hindu ideas relate to environmentalism and global harmony?

   Select one picture from the three given to you and explain the symbolism in it.

   (Pictures of Trinity, Nataraja and Sarasvati may be handed out; these are present in most of the books on Hindu art and symbolism.)

8. Who are *Devas*? Why are they worshipped?
9. Why do artists show *Devas* and *Devi*s with four or eight arms?
10. Discuss the myth—Hindu gods—my God, your God. Is one more powerful than the other?
11. Analyze and explain the following two verses from *Atharva Veda* and discuss if Hindu *Dharma* is polytheistic or monotheistic.

Here are two *shlokas* from *Atharva Veda* – ch.2, hymn 2 and verse 1 and 2:

"One God alone is to be worshipped. He is adorable."
"One God alone who is the giver of true happiness is to be worshipped by all."

Enrichment Activity

1. Students may discuss and critically examine the following points and answer the question if Hinduism is fundamentalist:

Fundamentalism and the Lack of it in Hindu Tradition

Hinduism, more than any religious system in the world is fully amenable to questioning, argumentation and logic. Pundits have been debating essential points of *Dharma* for as long as it has existed. The enthusiasm for such an extraordinary body of knowledge should not be confused with fundamentalism. Enthusiasm means to feel inspired, to learn more about the ideas and the basics. Fanatics and visionaries on the other hand, are compelled to make some outward mark of their zeal by enforcing their beliefs on others. This type of zeal may not always be rational or temperate.

Hindu *Dharma* does not naturally fall into the category of a fundamentalist religion. It offers to humanity an expanse hitherto ignored/misunderstood which includes its amazing insights into the universe, deep traditions, lofty, rich literature, compelling works on human nature, and caring and nonviolent attitude to nature.

Recommended Readings

1. *Hinduism – The Eternal Tradition*, David Frawley
2. *Tattva Bodha* (primary source)
3. *Srimad Bhagvad Gita* (primary source). Several good English translations of the book are available.

Critical Thinking Activity

1. Study the mantra below and discuss its relevance in today's world;

Om deo shanti, Antrikshagam shanti, Prithvi shanti, shanti rapah, shanti roshdhya, shanti vanaspatya, shanti Vishvedeva, shanti Brahma, shanti Sarvgam, shanti shanti reva, shanti Sama, shanti Redhi, Om shanti, shanti, shanti, Hari Om.

Meaning: *Deo* – divine world or world of *Devas* – atmosphere and the firmament,

shanti – peace, *antrikshagam* – space, *Prithvi* – earth, *rapah* – water, *roshdhya* – medicines, *vanaspatya* – plant world or vegetation, *VishveDeva* – lord of the universe, *Brahma* – God, *sarvgam* – everywhere, *dhi* – mind.

There is peace in the divine world, in the space, on the earth, in the waters, in the medicines, in the vegetation, in the Lord of the Universe, in God, everywhere. There is peace in peace, let that peace come to my mind. *Om*, peace, peace, peace.

2. The readers may use the following quote to develop as a topic for discussion or for expressing the ideas in art forms:

Max Muller finally admitted in his last book, "That the conception had been formed (in the Vedic period) that there is but One Being, neither male nor female, a Being raised high above all the conditions and limitations of personality and of human nature and nevertheless the Being that was really meant by all such name such as *Indra*, *Agni*, *Matarishvan* and by the name *Prajapati*, Lord of Creatures."

Endnotes

[1] By definition, Gospel is the exact opposite.
[2] David Frawley, *Hinduism –The Eternal Tradition*
[3] *Rig Veda*; M1, Hymn 164, Verse 46.
[4] F. Max Muller, *History of Ancient Sanskrit Literature*, William and Norgate, London, 1859, pp. 568-9
[5] Quote from Shankracharya – *Drig Drishya Vivek*
[6] *Moksha* means liberation; from anguish and conflict and also from the cycle of life and death.
[7] *Rita* is considered cosmic law; cosmic order; balance, order and justice in the nature of things.
[8] Students may go to the local temple and observe the ceremony and draw their own conclusions.
[9] One may say lost in translation!
[10] Review section 3, chapter 26 for more details

[11] See chapter on the Epics – *Mahabharata* for details about *Bhagvad Gita* and its author Krishna.

[12] *Papa* is what is wrong action and *Punya* is what is virtuous.

[13] This is for advanced students.

[14] *The Cosmos*, Carl Sagan, pp. 259-60

[15] Article by Sanjeev Nayyar – founder, www.esamskriti.com. Link of the article: http://economictimes.indiatimes.com/articleshow/1133152.cms, Times News Network (Sunday), June 05, 2005

Chapter 12

Indian Culture

The culture of any country can be defined as the complex of ideas, conceptions, developed qualities, organized relationships and courtesies that exist generally in a society and are expressed through various media of language, arts, music, drama, architecture, carvings, paintings, dance, scientific discoveries, inventions etc. Culture of a society manifests itself in its ideas, attitudes, values and aesthetics. To think that a certain country has more material equipment does not mean it has a higher or a better culture nor is the reverse true. This chapter will discuss the salient points of Indian culture.

Indian culture has an unusually and uninterrupted long period of existence—almost 6,500 years of growth (current evidence points to the Vedic civilization dating as far back as 4,500 B.C. and this is only on the basis of its known recorded history.)

As a result of cultural diffusion and assimilation over several centuries, Indian culture has become very diverse. It is almost like a piece of tapestry intricately woven.

The Basic Aspects of this Culture which Continue to Affect Indian Outlook and Life-style

1. *Tradition of Tolerance*

There is a tradition of tolerance towards individuals, religions and different influences. This is supported by the fact that the Jews persecuted and driven from their Holy Land found asylum in India and still live and prosper there as a community, hardly touched by the problems faced by the Jews elsewhere. Also, India is the only country where Zoroastrians have survived. The fact that the Muslims, the Christians and the followers of several sects emerging out of the Vedic religion live and enrich Indian culture

show that despite the differences in views, every individual is appreciated and respected.

2. *Universal Outlook*

Indian thought has never accepted geographic, racial and other considerations affecting the ultimate values. Indians have held to truths which they consider to be of universal validity. In the process they have selected values of different cultures and assimilated them as their own. The well-being of all is the focal point of the prayers. Aspirations in the prayers include the well-being of everyone regardless of sect, gender, class distinctions etc. The most common word in the chants is *Sarve* – meaning all and *shanti* – meaning peace.

Teacher may include the peace prayer (given in the last chapter) for the lesson.

3. *Philosophical Outlook*

Most of the cultural expressions of Indian civilization stem from the belief that there is a connection between the individual and the universal soul (the *Atman* and *Parmatman*. The Vedic expression *'Aham Brahm Asmi'1* explains this clearly.

4. *Respect for the Individual*

One of the fundamental beliefs in Indian culture is that every living, breathing thing has a spark of the Divine. Hence all life is sacred. Through the right knowledge and the right conduct, one can keep that spark kindled and achieve happiness. An individual is not for the sake of the state but the state and the kings exist for the benefit and service of the people. It is in sharp contrast with the Divine Rights of the kings- a political idea that shaped most of the European history.

According to *Dharma Sastras*, it is the duty (*Dharma*) of the individuals to improve society. They have the freedom of choice to choose any spiritual path and even to create a new one. When the King or the State moves away from the righteous path, individual citizens have the right to disobey it. They can peacefully, nonviolently resist what is ethically wrong and unjust. Indian culture thus emphasizes democratic principles of people's right to change the Government. Another related idea is that the individual has the power to change his own destiny through his Karmas and self-realization. Thus, Indian culture is individualistic and democratic.

5. *Unity in Nature*

Human beings are a unique creation of God but Indian culture stresses unity in nature and links between all living beings. The idea of nonviolence and a respect for all life means to recognize oneness of life. It is true that there are different grades of consciousness among animals and humans; however, all species are important in the panorama of life. The purpose of Yogic discipline and self-realization is to achieve harmony with nature.

All life is sacred. There should be respect for all living things.

The cow is equated to the status of a mother because it sustains children's life and later on, every part of the cow is useful to human beings. Cow is also a Sanskrit synonym for mother earth.

The issue of respect for cows—metaphoric sense: in the Vedas, cow is symbolic of light rays; rays not of the physical sun, but of the Divine light. Similarly, horse is symbolic of Divine Energy. Cows are thus worshipped for the mental plane, and horses for the vital plane. Cows, as the provider of nourishment for humanity, are also given loving care because they are domestic pets and one does not eat one's pets!

6. *Protection of the Environment*

Indian culture stresses simple living. The wasteful use of human and natural resources is discouraged. Recycling of discarded items is still done in India. In the last fifty years, because of the corrupt leaders and greed, some of these age-old beliefs are getting eroded.

7. *The Vision of the World as One Family*

This belief is a precursor of the modern concepts of global brotherhood sharing the same planet.

8. *Respect for Elders*

Respect for the elders is taught at an early age and for most of the people, the day begins by touching the feet of the elders and taking their blessings. Leaving aside some urban settings, people still live in joint families and they respect the wisdom and experience of their older relations. Their guidance and moral support is sought and appreciated. India is one of those few places, where one can find a four generational model of family living under one roof. With the materialistic superficiality preached by commercial TV and media, these values are getting eroded.

9. *Unity in Diversity*

- *Languages of India*

There are over 3,000 languages and dialects spoken in the country. Each region has its own language. Besides the national language Hindi, English is commonly spoken, and regional languages are also taught. Though Sanskrit as the oldest language has not been the language of the masses, these days, more and more people have been learning it. Most people know the language but it is not used conversationally. More than 2 million people around the world can speak in simple Sanskrit.[2]

- *Diverse Customs and Fairs*

In different parts of India, people celebrate life in different ways. There are regional folklore, folk dances and legends.

10. *A Planet to Share and Save*

The essence of Indian culture is the idea that this is the only planet for all of us and we must learn to share it with each other while promoting harmony, tolerance and understanding among all the inhabitants. Given below are a few quotes from some of the oldest texts on the nature of an ideal society.

"The whole world is a nest" *Atharva Veda*

"Let us share and enjoy together" *Kathopanishad*

"Let noble thoughts come to us from all sides" *Rig Veda*

"The whole world is one family" *Hitopadesh*

Truth is Divine and that which is Divine is Beautiful.

All the above cultural aspects are reflected in various art forms created from time to time. In the long history of India, these ideas about social life, personal beliefs and social aspirations have been expressed in ancient architecture, music, dance, literature, paintings and rock carving. Whatever medium the artist chooses, through his artistic expression, he seeks connection with the divine.[3] These art forms of different times are discussed in section 3, chapter 29.

Artistic and cultural traditions of India have been a source of inspiration to several countries, such as East Indian islands, Thailand, Cambodia, Vietnam, China, Japan, Tibet, Burma etc. This is discussed in section 3, chapter 28.

Summary

Indian culture has a very long history, exceptional unity of purpose, thought and dynamism. Its basic themes still form the core of the Indian way of thinking and life-style. It is the oldest continuous tradition. Indian culture emphasizes protection of the environment. There is an emphasis on recycling of the matter. Even the idea of cremation is to let the elements go back to the earth. Respect for all living things is basic to Indian thought. Aspirations in the prayers include the well-being of everyone in the society. The most common words in the chants are *Sarve* meaning all and *shanti* meaning peace.

Concepts to Understand

1. Culture can only be of value if it expresses society's norms and ideals.
2. Culture can be expressed in different ways.
3. Culture is the result of man's best efforts.
4. Ideas can keep their vitality by openness and assimilation.

For each of the above concepts, students can use their understanding by collecting and sharing art work or the stories from India.

Questions

1. Define Culture.
2. What are the basic points in Indian culture?
3. By using examples, show the effect of Indian culture on the people of any one of its neighbors.
4. "Truth is beautiful, in the end, truth alone triumphs". How?
5. What ideas of Indian culture are relevant in modern day life? Be specific.
6. Could there be a synthesis between Indian and American culture? Is it being tried?
7. Compare the ideas of nonviolent passive resistance of Mahatma Gandhi and Dr. Martin Luther King with that of the Buddhist ideas and the key ideas in Indian Culture.
8. What is the meaning of four generational model of family? How is family defined in American culture?
9. How do the Indian people take care of the aged and the infirm? Do you think joint family system is a substitute for social security system?
10. Compare the concept of joint family system with that of the communist dogma of communes.

Enrichment Activity

1. Indian culture has survived invasions and influx from the foreigners. Through the process of assimilation and cultural diffusion, it has maintained continuity. Through regional variations of customs and folklore, Indian culture has become uniquely diverse.

   In the light of the above statement, students may study and compare Indian culture with the cultures of at least two other countries from two different continents and show the element of diversity in those ancient cultures. Students may take the example of Greece and China.

2. Students may discuss the continuity of culture. Which aspects of Indian culture are still surviving in India?

Critical Thinking Activity

1. Students may collect cultural relics and artifacts to make class presentations—comparing not only art belonging to different ages but also that of different countries. They may compare aspects of various cultures and discuss striking similarities if any.

Source Material

Fundamentals of Indian Culture by K.M. Munshi

Vedic Aryans and the Origin of Civilization by Navaratna S. Rajaram and David Frawley, International Institute of Indian Studies

For enrichment purposes students may refer to;

- *The Study of Indian History and Culture* vol.1, Bhishma Publications.
- *India—A Cultural Millionaire* by Swami Pramukha Narayan. This short booklet is a must read to get an overview of Indian culture, the contributions of Indian Civilization to mankind and the opinions of some famous philosophers and writers about India.

Endnotes

[1] It means, I am part of the Divine.

[2] Source: http://www.samskrita-bharati.org/succ.html

[3] Check section 3, chapters 26 and 29.

Chapter 13

Indian Society and the *Varna Dharma*

Caste System: A Global Perspective

This chapter will focus on the organization of early societies in India while giving the global context. It will also challenge some of the misconceptions which many writers have promoted partly out of ignorance and partly out of bias. The social pattern discussed under the term Caste System is by far the most misunderstood topic of Ancient Indian History. This chapter will clarify the system as it existed 6,000 years ago and as it exists today.

Once the early settlements began to form communities and kingdoms, it became essential to have a social organization with defined roles and duties for various sections of the society. For example, in case of an attack, if everyone rushed to fight, there would be no one left to take care of the administration, trade, manufacturing and farming. In the Vedas, such a social grouping was considered necessary to maintain order. *Vishesha Dharma* (specific *Dharma*) became a part of the *Vedic Dharma*. The roles, duties and *Dharma* of various groups are described under specific *Dharma*. For example there is *Raj Dharma*—duties of a king, mother's *Dharma*, and soldier's *Dharma* etc.[1]

According to David Kinsley, "On the most general level, the need for order is affirmed to be basic. The world needs order, and to have it a great variety of social tasks must be undertaken faithfully. The world needs those whose occupation it is to maintain a beneficial relationship with the gods, who nourish the world. It needs those who maintain civil order and administer justice. It needs those who supply goods and services. It needs those who raise food. It needs those who wash laundry, make pots .... and perform a variety of types of manual labor and specialized services."[2] *Varna Dharma* created that order for society. T.W. Rhys Davids[3] distinguishes between *Varna* and *jaati*. According to him, *Varna* stands for

colors (read attributes and *Gunas*) and the latter for birth. The *jaati* is more like a surname or last name in the western countries. In neither sense did it have anything to do with the building of caste prejudices. He also states that during Buddha's time, caste system did not exist. "In Pali and other contemporary texts, these two terms occur as synonyms."[4]

In the fourth century B.C. Megasthenese described six occupations of the society. He did not mention *Shudras* as a class. According to Fa-Hien, 4th century A.D., the low caste *Chandalas* lived on the outskirts of the cities. He did not mention *Shudras* as a class.

Indian society was organized into a number of occupationally specialized groups with strong affiliations to the group, an awareness of their privileges as also, limitations of their rank. Organizing a vast continent and a fast growing civilization into groups and subgroups and emphasizing identity of each group and the individual in it was a remarkable effort. It started sometime during the Vedic period and was known as *Varna Ashrama* or *Varna Dharma*. Another name often used for the system is *Jaati*. The word is derived from the word '*jnyaati* or *gyaati*' which means, to be known. Just as in the west, there is a last name (surname) for the individual to be recognized as, in India there is *Jaati*. For a society which has been watchful about marriages between cousins and distant relatives (considered incest and medically disastrous), such a system was extremely useful.

Caste is a Portuguese word which neither defines nor fairly describes the Indian society. The problems arising by the use of this word will be discussed later. Manu the author of *Manu Smriti* is wrongly given the credit for devising the system. There are four castes – Brahmins (teachers and preachers), *Kshatriyas* (the warrior and the administrators), *Vaishyas* (the merchants, the manufacturers and the agriculturalists) and *Shudras* (the menial and manual workers). At first the *Vaishyas* included the manual workers. Later, the last class was split into two groups—those doing unpleasant and cleaning jobs were considered *Shudras. It should be remembered that there is NO mention of these people as untouchables or slaves or conquered ones in the Vedas or in the* Smriti. The word, Dasyus, is a reference to the servant class. It does not denote dark colored people. The word dark in Hindu texts is symbolic of ignorance and falsehood. The division was neither racial (Aryans vs. non Aryans) nor regional (Aryans vs. Dravidians from the Southern India) nor even linguistic (Sanskrit speaking vs. others). *The Varna (caste) distinction was between values, life-styles and occupations.* The higher the caste, the better was their following of the spiritual values. Some could follow the path of truth and purity and others worked for material acquisitions and fulfillment of

their desires. To quote David Frawley, "*Varna* hence originally meant social value, not hereditary caste but *the principles followed by the social group.*"[5] According to *Srimad Bhagvad Gita*, *Guna* (merit) and Karma (actions) decide to which *Varna* a person belongs.[6] This means that there is no mention of the later caste-like situation.

In the following pages, mostly *Varna* – the correct word for caste will be used.

Features of the *Varna* System

The smallest class in terms of numbers was that of the Brahmins. Their main job was teaching and preaching. They also conducted *Dharmic* ceremonies. As there were few temples, their role as a priestly class was minimal. The *Kshatriyas*' duty was to provide a just administration and protection of the nation. Among the *Kshatriyas*, soldiers were the largest group. As in modern times their job was dangerous. The kings fight for empires and for glory, soldiers fight to protect the dust of their birth land. Farmers did not fight. They supported the wars with taxes on their produce. *Vaishyas* were divided in several groups—manufacturers, artisans, artists, architects, craftsmen, potters, traders, farmers and manual workers—skilled as well as unskilled. Later, the unskilled workers were designated as *Shudras*. *Vaishyas,* especially the farmers did not participate in the wars and were left unhurt by the enemies. As wars were fought mostly in uninhabited areas, *Vaishyas* and farmers were not affected.

The *Varna* system was a religious, social, economic and a political institution. On the economic level, each group had assigned occupations and while following the clan, the members of a clan learned occupational skills from the family. Watching the family do the jobs, one could also acquire aptitude and skills. In the absence of vocational schools in that remote past, this system worked well for equipping people with skills for making a living and giving them opportunities to do so.

Politically, there was a class in society whose role was to dedicate their life for the protection of the country from the internal chaos and the foreign invasions. From early on, these people acquired martial skills and learned to face danger. Kingship was not always hereditary. The king was afraid of the will of the people and did *Yajnas* to gain their trust. Not only did he depend on the advice from the royal Guru—known as the *Raj Purohit*—he also consulted the elders and people in general. Various instances are given in the Vedic literature when the king's sons were not considered capable of inheriting the throne, the next king was chosen

from among the nobles or from the sages, as in the case of King Bharata of Kuru dynasty, who chose his heir from among the sages. Dhanananda—the last king of Nanda dynasty left the throne to a Brahmin prime minister. There is also evidence of the kings renouncing their throne and changing their role to start life as hermits. Since it was realized that knowledge can only be imparted by unselfish teachers, the Brahmins were not allowed to sell knowledge. They lived in a simple way on the charity from other classes. Any person with similar qualities was deemed to be a Brahmin and worthy of respect. Here is one instance, there was a debate between Shankaracharya and an ascetic from a lower *Varna*. At the end of the debate Shankara lost. In recognition of this qualitative superiority, Adi Shankara is said to have touched the feet of the *Shudra* ascetic.

Gita explains about the issue of superiority and it has nothing to do with the *Varna* in which one is born, "Superior are those who have mastered the scriptures with meaning. Still superior are those who perform their duties well. Superior to the latter are those who do not care for the fruits of their actions (duties)."

This is further reflected in this *shloka*, "At birth one is *Shudra*, through education and *samskaras*, one becomes cultured (*Dwija* or twice born), then by practicing the Vedas, one becomes *Vipra* or knowledgeable and it is only by acquiring the knowledge of the Absolute Brahm, does one become enlightened or Brahmin."

When each did his duties, there was a self-imposed discipline. The system was not supposed to be exploitative. Certain patterns of behavior were expected and were understood. Each group had a hierarchy and a lineage. In this way, each caste—*Varna* was a craft, a guild[7], a clan and an administrative unit at the same time,[8] affording each individual—male, female, child, elder—often across different castes, to fulfill their many roles. For a long time, the system was not rigid; otherwise it would not have survived for all these centuries. Since Hindus stress the place of Karma in life, many people moved from one group to another. *Manu Smriti* castigates the Brahmin who is called so because he is born to Brahmin parents. Manu states that he who has not studied the Vedas is not a Brahmin and should not be given food in the assembly of Brahmins.[9] There were so many restrictions on his behavior which made his life austere and many times difficult. There is nothing that suggests any conspiracy between the Brahmins and the *Kshatriyas* against the other two classes.

Varna (caste)[10] system is more than a grammar of social relations, dictionary of caste practices or a glossary of sub-castes. *Comparing it with the feudal system of medieval Europe or with slavery of modern America or apartheid*

of South Africa is wrong and misleading. The society evolved into groups; groups preserved their identity *voluntarily* through discipline, assuring themselves a place in the society and a job in the economy. It is true that one group was and is not equal to the other. That type of equality has never been there and cannot be expected anywhere in the world.

Indian Guilds[11]

Professional groups started organizing themselves into various guilds (*Senis, Pugas*), agreeing to be governed by their own laws and customs. They were led by a *Setthi* (chief of all 18 Guilds). Being the caravan leader, he was popularly known as a *Satthavaha.* Guilds were a form of a union or an association for the welfare of its members enjoying the rights to approach the king for seeking redressal of their grievances and to demand justice. Both the Jaina and Buddhist traditions refer to 18 guilds:

1) Architects	2) Mechanics	3) Carpenters
4) Smiths	5) Masons	6) Stoneworkers
7) Weavers/spinners/tailors	8) Ivory workers	9) Conch workers
10) Leather workers	11) Dyers/washermen	12) Potters
13) Jewelers	14) Barbers	15) Garland makers
16) Sailors	17) Basket makers	18) Painters

Settlement of Disputes Between the Guilds

At the head of each guild, there was a president *(pramukha)* or alderman *(jetthaka).* The disputes between one guild and another fell within the jurisdiction of the *Mahasetthi* ('Lord High Treasurer'), who acted in the capacity of a chief alderman over the alderman of the guilds. During the time of Buddha, the guilds were well-organized and found an important place in the economic life of the country.

Artha Sastra, written in the fourth century B.C. by Chanakya mentions many occupations organized in a large number of guilds. It was hard to place these into a *Chaturvarnya* (fourfold division) structure.

Were all the Ancient Rishis Brahmins?

It may be noted that many famous people in Indian history were not Brahmins. A few examples are given below:

Mahidasa Aitareya, the author of one of the 10 major *Upanisadas*, was the son of a maid. In *Chhandogya Upanisada*, Satya Kama Jabala, the son of a maid and an unknown father was revered as a sage. Vishvamitra was a *Kshatriya* before he became a seer.

Sage Kakshivat, a Vedic sage, was the son of a *shudra* maidservant. According to *Mahabharata* (*Anushasana Parva* 53.13-19), Sage Kapinjalada was a Chandala and Sage Madanapala was the son of a boatwoman. Even in our own times, Swami Vivekananda was a *Kayastha* and therefore technically a *Shudra*. Vyasa, the author of the *Mahabharata* was the son of a fisherwoman; Vidur, the prime minister of Kuru King Dhritarashtra was the son of a maidservant and Valmiki was from a lower caste.

Was Varna Ashrama *an Exploitative System?*

In the Vedic times people lived in abundance. There are references of people from all castes owning property and means of production. The word used for a wealthy person in the Vedic literature is *Mahasala* and there are words like *Brahamana Mahasala*, *Khattiya Mahasala*, and *Gahpati Mahasala*. It should be clearly understood that here the word *Gahpati* includes the *Vaishyas* and the *Shudras*. The fact that respectable people lived comfortably does not indicate class exploitation or class struggle nor is any evidence of it available in Vedic literature. These terms were used by foreign people accustomed to feudalism and mercantilism of medieval western history and the Roman and Greek system of enslaving conquered people of the early European times.

Later, because of foreign invasions, political instability and other social insecurities, the system became more rigid. Also, discrimination became common especially starting with the British rulers. The British rulers considered themselves as belonging to a superior race.

In the past hundred years or so, the caste barriers are breaking down because of the following factors; education, movement to cities, inter-caste marriages, individualism and new economic opportunities, industrialization enabling factory workers from all *jaatis* working in close proximity. The restaurant business employs people from all *varna*s and food lovers eat there.

Who Were Shudras?

Dr. Ambedkar says: "After deep study of the subject I have come to conclude that:

i) The *Shudras* were *Aryas*;

ii) That the *Shudras* belonged to the *Kshatriya class*; and

iii) That the *Shudras* were so important a class of *Kshatriyas* that some of the most eminent and powerful kings of the ancient Arya communities were *Shudras*."[12]

This verse from the *Mahabharata* says, "In all the *Varna*s and in all the *Ashramas* one finds the existence of *Dasyus*." This indicates that the term *Dasyus* is not used for a non-Aryan or for *Shudras*.[13]

Later Changes in the *Varna* System

Untouchability

Untouchability is a function of hygiene and is not related to economic conditions and life-styles. In the Vedic and post-Vedic literature there is no mention of the word untouchability nor is there any reference to such a class. Just as India before independence coined the word *Harijan* and after independence the word *Dalit*, so was the word untouchable coined during the British times.

Caste and Other Religions of India

Sikhs and their Lower Castes

Class/caste distinctions exist in every society. *Majhabi* Sikhs are at the bottom of the ladder and other classes are along Jat and non-Jat categories. *Kshatriyas* are considered lower than the Jats.

Muslims and the Pyramid of their Caste System

Dr. Ambedkar noted that 'casteism in Islam was almost as strong as in Hinduism.' He gives the Muslim equivalent of Hindu *jaatis* in the following categories:

Brahmins – Sheikhs, Syeds

Kshatriyas – Mogul, Pathan (khan)

Vaishyas – Bohra

Shudra – Ansari

Dalit – Qureishi

In general there are three main *Varna*s among Muslims in India:

Ashraf (high born) – foreign invaders

Ajlaf (low born) – local high caste converts

Razil (dirty) – *Dalit* converts

Throughout the medieval period, Muslim scholars such as Beruni called for ruthless treatment of Indian Muslims. When Sir Syed Ahmed Khan opened Aligarh Muslim University, the university banned admission to low caste Muslims. When the Muslim League was formed in 1906, it began with the words "We the nawabs, zamindars and talukdars..."[14]

Nalin Verma, refers to the condition of Muslim dalits, "Ali Anwar's book, *Masawat ki Jung* has sent a shiver down the spines of Muslim elites as it dwells at length on the plight of *Dalit* Muslims derided and treated as pariahs by the upper caste brethren and *ulemas*. This goes against the tenets of Islam which does not sanction inequality on the basis of caste and birth."[15]

Upper Castes who Converted to Islam

Brahmin – 0.6%

Rajput – 5.8%

Vaishyas – 7.3%

Down the centuries, those who converted continued to carry the caste band with them in their social dealings. If anyone still doubts the existence of the caste system among the converts then the following demand should dispel it.

The recent demand by the Christian missionaries and Muslim organizations for reservations in jobs and schools, etc. for those converted (and are still *Dalits* – oppressed and underprivileged), is a clear proof of the poor status of the converts from lower castes.

Buddhism and the Lower Caste

Many people offer fallacious explanation that Hinduism lost to Buddhism in the olden days due to some of the caste evils. Historical evidence does not point to this. The assertion that Buddhism took hold in India because of the caste system is historically not correct. Rather, it was widespread bloodshed due to the wars by Emperor Asoka and his realization of its futility that he came under the sway of *ahimsa* (nonviolence) of Buddhism[16]. Under his tutelage, Buddhism spread in ancient India and in the Far East. It was not because of the caste system. Moreover, Buddhism is only an offshoot of Vedic Hindu *Dharma*. Gautama Buddha did not talk about *Varna Dharma*. Many scholars believe that Buddha did not make specific reference to *Varna Ashrama* system because their contemporary society was administered by a King "who was to safeguard the religious harmony of the '*Varna Ashrama*' system, it appears to be safe to presume that Buddha (and Appar, Shankracharya) went around with their primary focus on the 'spreading of the knowledge of Self realization'; and anything else that comes across is an incidental reference of a secondary nature."[17] There is not much evidence about, "any Buddhist or Jaina writer who made any effort in these earlier periods to formulate the rules for the social

administration and the state craft, distinct enough to represent the faith and philosophy of Buddha and Mahavir Jaina."[18] Buddhist and Jaina literature stressed the need for *Varna Ashrama.*[19]

It is not important whether Buddha believed in the caste system or not, the main point is whether Buddhists practice caste system or not. There seems to be a strong link between Buddhism and untouchability. For Buddhists, anyone killing animals was a sinner. The *Jataka* tales show hunters in a bad light. In Japan, there is a separate caste that kills animals called *burakumin* who are untouchable. In Thailand, the butchers were of a low caste who converted to Christianity. In India, the low caste converts to Christianity are still *Dalits* and widespread discrimination against them continues in Indian Christian society. In Bhutan, Muslims are hired as butchers, and butchers of any religion are considered as low caste.

Hindu Society in Turmoil

After 800 A.D. most of the kingdoms and society in general were in turmoil. In the absence of law and order, people tended to retreat to corners and maintained their defenses. In the times of a struggle for survival and safety, there was no one to reform the society.

British rulers introduced another caste—the super caste and that was of the white rulers. *Varna* system was mistranslated, slandered and then presented to the world by their academics as the *heinous caste system.*

If any Viceroy seriously wanted to bring equality in Indian society, he would have made affirmative action laws. That did not suit the purpose of the colonial rulers. The divisions along caste lines suited all the rulers perfectly well. The rulers assumed the status of a super caste. Sixty years after independence; these divisions artificially sharpened, continue to serve the purpose of the political party that rules.

Classes and Conflicts in Europe—*Varna* System in the Global Context

Human servitude including buying and selling of slaves has been a part of the European and the Middle Eastern Societies from their earliest recorded history. According to Louis Cable, "In fact, neither the Old nor New Testament contains an outright condemnation of this infamous institution."[20]

Slavery continued during the feudal period. Serfs of the Lords had virtually no rights. During the industrial revolution, the miners and other industrial workers were neither protected by the kings nor by the religious

institutions of those times. Thus, the exploitation of the lowest classes continued. Class conflict and oppression of the lower classes by the feudal lords dominated the European scenario right up to the thirties of the 19th century. Europe was trying to find a parallel in India, finding none; European rulers of India decided to dub the caste system as something akin to slavery. The word slavery is derived from the Slavic people belonging to the Eastern Europe where the languages spoken were known as Slavic languages. *Varna Dharma* and the guild system of Ancient India had no parallel in Western Asia and Europe.

Global Context of Class and Oppression through History

Slavery existed in Europe since prehistoric times. It continued during the so called glorious days of Greece and Rome. During the spread of Christianity, it got the blessings of the Papal authorities as long as the enslaved were not Judo-Christians. Slavs, who were still outside the bounds of Christian hierarchy, were the targets.[21]

> Aristotle[22] defined slavery thus, "Hence we see what is the nature and office of a slave; he who is by nature not his own but another's man, is by nature a slave; and he may be said to be another's man who, being a human being, is also a possession. And a possession may be defined as an instrument of action, separable from the possessor." He further validated slavery by saying, "There is no difficulty in answering this question, on grounds both of reason and of fact. For that some should rule and others be ruled is a thing not only necessary, but expedient; from the hour of their birth, some are marked out for subjection, others for rule."

Accordingly, the Greek society was divided in three classes—aristocrats, citizens and slaves. This reflects intellectual and philosophic approval of slavery and sharp class divisions. Considering the description of the society by visitors and by referring to the definition of the term itself, one can state that slavery did not exist in ancient India.

After the death of Alexander, Megasthenese visited India and noted, "This is a great thing in India that all the inhabitants are free, not a single Indian being a slave."[23]

His surprise was genuine in the light of Greco-Roman societies. The Greek historians and visitors to India unanimously agreed that there was no slavery. The society however was organized along occupational lines. The teachers and the peasants were exempt from military duty; as a result, the farmers tilled the land in peace and security whether the country was

at war or not.[24] According to these writers, people were divided in seven groups—philosophers (Brahmin and Buddhist religious teachers), husbandmen, shepherds, artisans, soldiers, civil officers and ministers. Megasthenese did not mention the word *Shudra* but he did mention that *Chandalas* lived outside the city limits.

Discrimination, Caste and Classes

The caste system was made illegal in 1947 and the civil rights law in the USA was passed only in 1957 and 1964. Class distinctions always will be there as long as property, means of production and land are privately owned. Even in a family, no two siblings are the same or turn out equal. With the knowledge of other cultures and awareness of diversity among people, discrimination should disappear. At least that should be the goal!

When the Soviet Union tried the socialist experiment to create a classless society, they failed. Their new classes were the ruling group and the proletariat (workers), remained where they were before the communist revolution.

China is a communist country; students may like to conduct a research of the Chinese society to find out if it is a classless society and if not; what is the new basis of class divisions in China.

Summary

The organization of Indian society along occupational lines happened gradually. Various groups carried out their duties relating to their role in the family and their occupation. This was an aspect of *Dharma*. Even when the influence of the Vedic practices extended to several other parts of the subcontinent, hereditary division among the occupational groups was not prevalent.

Codification came several centuries after the *Mahabharata* war. It was done by someone by the name of Manu. This Manu was not Adi Manu. This Manu was not *Svayambhu Manu* nor was he listed among Manus who came after *Swayambhu*.

People born as *Vaishyas* or *Kshatriyas* did move to professions other than those of their parents. The earlier categories mentioned were only three.

The defining qualities and responsibilities of each role determined one's *Varna*. Untouchability is not mentioned anywhere in the Vedic or post-Vedic literature.

Varna Dharma did not create an affluent class. Brahmins were not a rich class but were respected by the society. In ancient folklore and other stories, Brahmins were always given an adjective—'poor' and were described as mendicants. The learned and the highly educated have been respected and held in high esteem in most societies. It is neither discrimination nor exploitation.

The Greek sources of third-fourth centuries B.C. and the Chinese sources of fourth century A.D. do not mention *shudras* or untouchables.

Vedas and the post-Vedic literature mention *Varna Ashrama* with three classes. The term and the connotation attached to caste system is not what *Varna Dharma* was. Chanakya specifically mentioned that there is no slavery within *Varna Dharma*. The word *shudra* appears in Tulsidasa's version of *Ramayana*. It is not mentioned in the version given in the *Mahabharata* nor in Bhasa's *Ramayana*. Neither Buddha nor any other scholar discussed or even referred to the caste system as it is portrayed today. Readers may compare how other societies lived in the same time frame.

Varna Dharma created an order for society. Society has always evolved and organized itself along class lines. Each society finds its own basis for classes. In the earlier times the *Varna Dharma* was neither exploitative nor rigid. Religion alone was not the cause or origin of this system. An attempt to assign various types of duties to different groups was the basis of this type of social organization. Division along castes was neither along color nor along regional differences. It was based on the materialistic or spiritual values of the group.

None of the eminent people from ancient times like Vishvamitra, Valmiki, Ramachandra, Sri Krishna, Vyasa, Gautama Buddha, Mahavira Jaina, Chandragupta Maurya, Samudragupta, Vikramaditya, and Shalivahan were Brahmins.

Frequently Asked Questions

Q1. Were the conquered people in Ancient India considered *Shudras*?

Ans. According to the varied literary resources and the accounts of the foreign visitors, the answer is no.

Q2. Were the *Shudras*/Dasyus of a dark complexion?

Ans. No. The word '*Varna*' originally meant a class participating in a particular occupation, and it had nothing to do with the color or complexion. *The Vedic people had no color prejudice. They were not of one color.*

Q3. How much does caste impact life in India today?

Ans. Due to urbanization, caste considerations are rarely noticed. As in the western countries, wealth has become the factor deciding one's class. *Jaati* as clan or surname is still relevant.

Q4. Has affirmative action/laws by independent government been effective in helping people belonging to lower castes?

Ans. Yes, there was 10% reservation in all government jobs and in educational institutions, later it was increased to 69 % whereas the population of the lowest caste is 3% of the total population.

Q5. Was *Varna Dharma* exploitative?

Ans. No.

Q6. Does discrimination on the lines of caste still exist?

Ans. Yes, in some suburban areas discrimination is there. *Discrimination based on some or other factor is there in all societies.* Students can discuss the race relations in America and the conditions in the ghettoes of American cities.

Q7. Who wrote *Manu Smriti*?

Ans. Manu wrote the *Smriti* around third century B.C. He did not start *Varna Dharma.*

Concepts to Understand

1. "Caste system was introduced by Aryans when they arrived in India"—*both events did not happen.*
2. *Manu Smriti* was written in 3rd century B.C. He did not start *Varna Dharma.*
3. The concept that caste is a rigid mold in which a person is born is a *total myth* because *Varna* based on *Guna* and Karma is mentioned in the *Mahabharata* and the *Ramayana. Manu Smriti* is not mentioned in the epics.
4. *Varna* does not mean a divide between the north Indians and the south Indians.
5. *Varna* does not mean duties assigned by color. Race and religion which are fundamental to European historical thinking is not part of *Varna.* Slavery because of one's color has been a reality of Western and middle Eastern societies not of Indus-Sarasvati or Vedic societies. Chanakya in his *Artha Sastra* clearly lays down elaborate rules about the treatment

of the conquered people. He also mentions that there is no slavery in *Varna Dharma*. Here is a quote from *Artha Sastra*:

Na tvevaryasya dasabhavah – 3.13.04

It means that in the *Varna* classes, there is no slavery. All people in all classes are noble people – Arya, doing their *Swadharmas* (specific duties of their occupation and their role in society). According to his advice, even the defeated prisoners of the enemy were absorbed in the society.

6. *There were four groups and the fifth was untouchables—this assertion is absolutely wrong and baseless with no literary evidence.*
7. '*Shudras* was a separate group' is a myth, because everyone was considered a *Shudra* when born.
8. Megasthenese did not mention *Shudra* as a group but mentioned six divisions of the Indian society.[25]
9. There is no such word as Brahmanism (used for Hinduism) or its equivalent in the languages of India. This term suggests neither *Brahm* (the Creator) nor related matters nor does it suggest the influence and power of Brahmins in Hinduism.
10. Brahmins were an oppressive class is a conclusion not based on historical accounts.

> "Brahmins were never a social majority in any period of society. For that matter, a careful study of these same works shows that the society had a set of rules, diluted set of practices for the larger groups of the society. And these rules had segmentations related to religious guidance—performance of the religious obligations and duties—the ethical aspects. The austere life expected from spiritual teachers and priests was followed in all faith traditions. There were Buddhist monks, Jaina Munis etc. One can assume that there were Jaina Brahmins, Buddhist Brahmins, and orthodox Brahmins, Naiyayikas Brahmins, Carvaka Brahmins, Saivite Brahmins, Vaishnavite Brahmins and the like."[26]

Questions of equity and parity should be analyzed in the context of the evolution of society worldwide in a comparable timeframe. The current perspective of discrimination as a worldwide phenomenon must be studied and efforts made to correct it.

Questions

1. What is caste system? Is it relevant or useful in modern society?
2. How do you compare caste system with apartheid or slavery?
3. Why are people becoming less conscious of the caste divisions?
4. What were the advantages of the *Varna* system because of which it survived till today?
5. Discuss the duties of *Kshatriyas* and Brahmins in Ancient India. Do we have similar specialized classes in modern societies? Describe the life of *Kshatriyas* and Brahmins in ancient times.
6. In the light of the history of other countries, which other class systems seem similar to the caste system?
7. Have class divisions disappeared in the societies of today, if not, in which form do they exist? There should be an open debate on the subject, students participating should be using examples from various other civilizations, both ancient and modern.
8. Is there any country where total equality existed in the past or exists today?
9. How many societies still have some form of class divisions? At least give two examples of classless society or nation.
10. Study the paragraph about the Greek position on the issue and discuss the impact of such dictates on the stability of the family and family values.
11. Evaluate the following paragraph from the book, *No Full Stops in India* by Mark Tully and discuss the merit of having a surname. What does it mean to you? Students may note that the writer has used the word caste for the term *jaati*.

> "The caste system provides security and a community for millions of Indians. It gives them an identity that neither Western Science nor Western thought has yet provided, because caste is not just a matter of being a Brahmin or a *Harijan:* it is also a kinship system. The system provides a wider support group than a family: a group which has a social life in which all its members participate."

For more details, students may refer to the article, 'Slavery And The Bible' by Louis W. Cable.

Enrichment Activity

1. In modern days, who is a Brahmin? Is the label relevant? Answer these questions with the help of the following quote:

According to *Srimad Bhagvad Gita*, Brahmin's status can be given to one who imparts knowledge and one who is a Vedic scholar. Also, if a person is renounced and leads an ascetic life of service, his caste does not matter. Most people engaging in the quest for knowledge and sincerely imparting that knowledge are to be considered Brahmins. Integrity of the teacher (academia) is the main point. Knowledge when it purifies the ignorant makes a person twice born. At birth all are ignorant.

Critical Thinking Activity

1. T.W. Rhys Davids[27] distinguishes between *Varna* and *jaatis*. According to him, *Varna* stands for colors (read attributes and *Gunas*) and the latter for birth. In the light of the above, do you think, *Varna Ashrama* was hereditary?

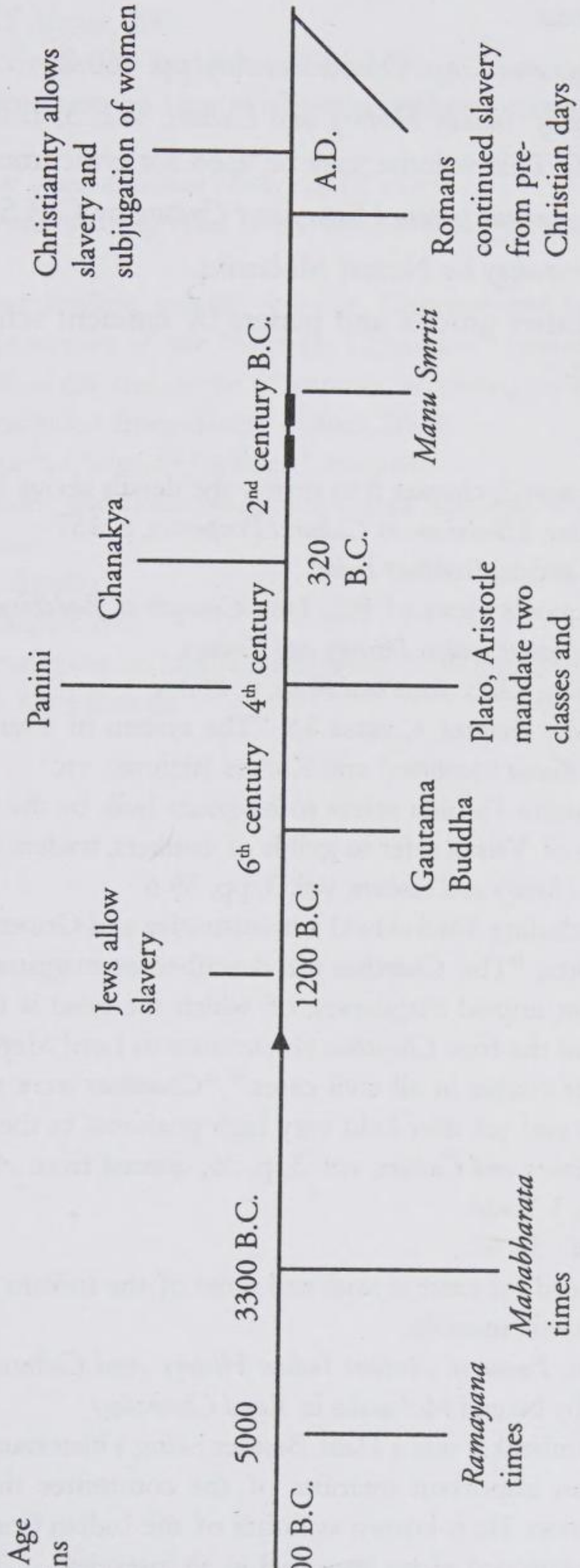
   Are *jaatis* hereditary?
2. Can we lump *jaatis* and *Varna*s together under the Portuguese term caste?
3. Student may research the root word Slav. Would that be the root for the term slavery?

   Students should trace the history of class conflict and its roots in other countries and decide how *Varna Ashrama* (caste) is different. This can be a group project for the class.
4. Students may study the timeline on page 205 and compare early societies especially considering the class divisions. How did the philosophic attitude of Vedic and post-Vedic people differ from the philosophy of European and Middle Eastern countries? They may write one paragraph for each of the regions—northern and central Europe, Greek city states and cities of Roman Empire.

Note

All dates given in the timeline are approximate. They are subject to change if evidence comes suggesting the need to predate the major events.

The Timeline of Events – Social Structures Across the World



Source Material

- *Manu Smriti*
- *Gods, Sages and Kings*, David Frawley, pp. 260-2
- *The Study of Indian History and Culture*, vol. 3, Bhishma Publications, pp. 29-46. This volume may be used for enrichment purposes.
- *Facets of Ancient Indian History and Culture* by G.P. Singh, Part II
- *Royal Chronology* by Neeraj Mohanka.

Several other articles and papers by eminent scholars mentioned in the endnotes.

Endnotes

[1] Refer to section 2, chapter 8 to review the details about *Vishesha Dharma.*

[2] David Kinsley, *Hinduism- A Cultural Perspective*, p. 157

[3] T.W. Rhys Davids, *Buddhist India*

[4] G.P. Singh quotes views of B.C. Law, *Concepts of Buddhism*, in his book *Facets of Ancient Indian History and Culture*

[5] David Frawley, *Gods, Sages and Kings*, p. 262

[6] *Bhagavad Gita*, chapter 4, verse 13: "The system of four *Varnas* is created ... based on *Guna* (qualities) and Karma (actions), etc.

[7] Chinese traveler Fa-hien refers to hospitals built by the guild of silk weavers. The seals of Vaisali refer to guilds of bankers, traders and artisans. *The Study of Indian History and Culture,* vol. 3, pp. 35-6

[8] *Vaishyas*; including *Shudras* held administrative and Government positions. D.C. Sircar notes, "The *Chauthias* are described as magistrates .... In every town there is an unpaid magistracy, of which the head is the *Nagarseth*, or chief citizen and the four *Chauthias* tantamount to Lord Mayor and alderman, who hold their courts in all civil cases." "*Chauthias* were neither Brahmins nor *Kshatriyas* and yet they held very high positions in the villages." *The Study of Indian History and Culture*, vol. 3, p. 36, quoted from *Annals and Antiquities of Rajasthan*, J. Todd.

[9] *Manu Smriti* - 3 - 67

[10] Generic word for caste is *jaatis* and most of the Indians had no idea about the term caste till recently.

[11] G.P. Singh, *Facets of Ancient Indian History And Culture: New Perception*, 2003. Quoted by Neeraj Mohanka in *Royal Chronology*

[12] Dr. B.R. Ambedkar was a *Dalit.* Besides being a historian and a social reformer, he was an important member of the committee that drafted the Indian Constitution. He is known as father of the Indian Constitution. Ambedkar's above mentioned views appeared in an interview – 'The Original Home of the Hindus', *Organizer* (1-23-94)

[13] *Shanti Parva* of *Mahabharata*, chapter 65, verse 23
[14] In English, these titles would be; chiefs, landowners and officials
[15] *Masawat ki Jung,* Ali Anwar, 2001
[16] Whether Asoka converted to Buddhism is unproven.
[17] B.V.K. Sastry in email post on hinducivilization@yahogroups.com
[18] Ibid.
[19] G.P. Singh, *'Facets of Ancient Indian History and Culture'*
[20] For more details, students may refer to the article, 'Slavery And The Bible' by Louis W. Cable
[21] Early medieval slave traders, mostly Venetian, Genoese and Jewish, did not violate the new principles of the "Societas Christiana," introduced by Pope Gregory the Great at the end of the 6th century, according to which baptized people must be excluded from slavery (Alinei, 2003).
[22] http://classics.mit.edu/Aristotle/politics.1.one.html
[23] *Anabasis* of Alexander, and *Indica* by Arrian; Greek historian who used quotes from Megasthenese
[24] Refer to, *Geography*, Strabo
[25] Check section 3, chapter 20
[26] B.V.K. Sastry in email post on hinducivilization@yahoogroups.com
[27] *Buddhist India,* T.W. Rhys Davids

Chapter 14

The Age of Epics

This chapter will discuss the events of the Epic period which is believed to be between 7,000 to 3,000 years B.C. Besides the significant events of the Epic period, the chapter will also discuss the everlasting popularity of the epics in many countries of the world.

What are the Epics?

Epics are very long stories written in poetry. These narratives usually run into thousands of pages. The *Mahabharata* is the longest written epic of mankind. It is about 12,000 pages in length.

The Age of Epics does not refer to when these epics were written but when the events narrated in these epics occurred. The epics were written while the actual events were taking place and the writers were contemporaneous, describing not only the events but also making notes of the sky epigraphy. The study of sky epigraphy falls under the subject of astronomy.

The epics depict the composite nature of Indian culture as well as its various strands in variegated forms. Whether it is the birth of democracy, of good government, *Rajya Dharma* (royal duties), diplomacy and war, polity and its foundations or any other cultural facet, all these are analyzed and explained in the epics. Besides being historical narratives, these epic dramas are cultural documents of great literary and sociopolitical value.

The dramatization of these epics is used as standards of excellence, as a benchmark of morality and spirituality for the viewers to follow. The epics thus carry the guidelines for individual and social behavior—a whole framework of value systems. The later generations tried to follow the guidelines of ideal behavior laid down in the epics.

The epics also describe the ecology, geography, kings, kingdoms and the genealogies of various dynasties of the time of the epics.

The period after the early Vedic age is known as the Age of Epics, because during this period two major epics were written down approximately at an interval of a few thousand years[1]. These were the *Ramayana* written by Valmiki and the *Mahabharata* written by Veda Vyasa. The *Mahabharata* was written by Sage Vyasa while the events were still happening. There is a controversy about the time period of these events. Many historians have proven that the *Ramayana* was written around 7,000 B.C. and the *Mahabharata* was written around 3,000 B.C. Some historians date these events much later. At the same time, many indologists place these events at a much earlier time. As mentioned before, the chronology of early Indian history has been altered and distorted several times to suit the political interests of the countries these historians represented. While opinions can be dislodged easily, the data yielded by computers and C-14 dating of the relics[2] should and will establish the accurate time for these events. It may be noted that the *Ramayana* does not mention the advanced urban civilization of the Indus-Sarasvati region. Kaikeya was the maternal grandparent of Bharata—Rama's younger brother. He ruled over the area between the Rivers Chenab and Jhelum. Bharata often visited the kingdom of his grandfather. During his exile, Rama spent time in Chitrakoot, located in the western part of Uttar Pradesh. There is no mention of the urban character of north-northwest of the subcontinent. One can assume that the *Ramayana* preceded the technically advanced urban phase of Indian civilization.

NASA's discoveries of the bridge between India and Sri Lanka—mentioned in the *Ramayana* as the bridge built by King Rama and his soldiers to cross over to Sri Lanka is already pointing to the authenticity of some of the facts mentioned in the *Ramayana*. Similarly, historicity of the events is further clarified by other archeological facts. NASA's archeological discovery is just one among many such discoveries.

Here is a summary of epic story in the *Ramayana*. King Dasharatha, who belonged to the solar dynasty ruled over the region around Avadha which is also known as Kosala. Kosala was one of the sixteen *Mahajanapadas* mentioned in the ancient texts. The capital of Avadha was Ayodhya. King Dasharatha had three queens; Koushalya, Kaikayee and Sumitra. He had four sons by these queens – Rama, Bharata, Lakshmana and Shatrughana. In the tradition of equality and austerity, the princes were sent to Vashishta's *Gurukula* for studies. *Gurukula* is like a boarding school for studies. The students who attended the *Gurukula* came from different classes, tribes and kingdoms. Some were princes and many others were from ordinary backgrounds.

They completed their education under their teacher Vashishta and his wife Arundhati. Their education covered a wide range of subjects—language, grammar, politics, administration, royal duties, music, martial arts, fine arts and techniques of warfare. They came back as young men and were soon married. The King along with the subjects of the kingdom decided to name the oldest son, Rama, as the crown prince. Queen Kaikayee decided to have the throne for her son Bharata and at the same time insisted to banish Rama from the kingdom for fourteen years. Lakshmana; Rama's younger brother and Rama's wife, Sita insisted on accompanying him. Unable to bear the separation from his sons, the King died. Readers may note that his three widows did not commit suicide (*sati*) at his death.

During those years of exile, Rama with the help of Lakshmana cleansed the forests of many evil persons. Towards the end of his exile; he killed Ravana—the despotic King of Sri Lanka.

Ravana, the king of Sri Lanka had kidnapped Sita and refused to return her. Ravana's relatives also implored him to do the right thing. The war followed. Rama's army consisted of several tribal people from the south of the Vindhya Mountains. After many fierce battles lasting several days, excepting one brother Vibhishana, all the sons and brothers of Ravana were killed. After Rama coronated Vibhishana as the new King of Sri Lanka, he returned to Ayodhya. Till this day, Rama's homecoming is celebrated by lighting the lamps and distributing sweets among friends and relatives. The festival is known as Diwali, and it is celebrated in the month of *Kartika* (typically October or November of the western calendar).

All through his life, King Rama followed the path of righteousness. He ensured that his government was just and followed democratic traditions. To this day he is remembered as an ideal king. The story of Rama as narrated by sage Valmiki in many ways is much like the Greek epics, emphasizing heroism, chivalry, and self sacrifice. The difference between the two is *that the Ramayana is a historical fact with much archeological, astronomical and literary evidence available, whereas the Greek epics are viewed as mythological.* The fight of the right values over the wrong ones depicted in the *Ramayana* was repeated several times over in the long history of India. Besides being a cultural and a historical document, the *Ramayana* emphasizes the ideals of human behavior and reveals the key points of the educational system, social customs, techniques of warfare and political conditions of those times.

Geography of India as Described in the *Ramayana*

The *Ramayana* is geographically very accurate. Every site on Rama's route is still identifiable and has continuing traditions or temples to commemorate his visit.

In 1975, the Archaeological Survey of India (ASI) unearthed fourteen pillar bases of *kasauti* stone with Hindu motifs at Ayodhya; reports of the excavations are available with the ASI.

Places like Ayodhya (in Uttar Pradesh) where Rama was born, Mithila (now in Nepal) where Sita was born and married, are still in existence. In Mithila, there is Sitamarhi, where Sita was found in a furrow, still revered as the Janaki Kunda constructed by her father Janak. After their marriage, Rama and Sita left Mithila for Ayodhya via Lumbini (in Nepal). In 249 B.C., Asoka erected a pillar in Lumbini with an inscription referring to the visits by both Rama and Buddha to Lumbini.

During their 14 year exile, they stayed at many places. Many of those places on their route are still there. We can trace their route and learn about the geography of those days. Rama, Lakshmana and Sita left Ayodhya and went to Sringaverapura, modern Sringverpur in Uttar Pradesh, where they crossed the River Ganga. They lived on Chitrakoot hill where Bharata and Shatrughna (Rama's younger brothers) met them and pleaded with Rama to return as the king of Ayodhya. Rama declined the offer.

Thereafter, the three wandered through Dandakaranya in Central India, described as a land of tribes. Many tribals still live in these forests. They then reached Nasik, on the River Godavari, which has a number of sites and events of Rama's sojourn, such as Dandakvana where they lived, *Ramkund* where Rama and Sita used to bathe, *Lakshmankund*, (Lakshmana's bathing area), and several caves in the area associated with their abode in the forest.

Rama then moved to Panchvati near Bhadrachalam (Andhra Pradesh), where Ravana abducted Sita. While searching for Sita, they reached Kishkandha, near Hampi, where Rama first met Sugriva and Hanuman. This is a major site associated with Rama's exile. Today, people living around the region of Hampi associate every rock and river with Rama.

Near Hospet, there is a place called Anjanadri, the birth place of Hanuman. Sugriva lived in Rishyamukha on the banks of the Pampa River (Tungbhadra). Aided by Sugriva's army, Rama left Kishkandha and reached Rameshweram, where they built a bridge to Sri Lanka from Dhanushkodi on Rameshweram Island to Talaimannar in Sri Lanka.

Recently, NASA discovered the submerged bridge. On his return from Sri Lanka, Rama worshipped Shiva at Rameshweram. The Shiva temple at Rameshweram is still one of the most sacred sites for Hindu pilgrims. Sri Lanka also has relics of the *Ramayana*. There are several caves, such as Ravana Ella Falls, where Ravana is believed to have hidden Sita to prevent Rama from finding her. The Sitai Amman Temple at Numara Eliya is situated near the Ashokavan, where Ravana once kept her imprisoned.[3]

In Nepal, Sri Lanka and India, these sites are revered as places of pilgrimage.

The map of the ancient kingdoms of India shows some of the important places described in the epic, such as the island of Sri Lanka, Ayodhya, Mithila (also known as Videha), Kaikeya, Chitrakoot, Vindhya Mountains, Panchvati, Dandakvana, Kishkandha and Rameshveram. It also mentions several rivers such as River Sarayu, Tamasa,[4] Pampa and Ganga. Readers should examine the map of ancient India provided at the beginning of this text. All the rivers mentioned in the *Ramayana* exist to this day.

The Ramayana – Facts

1. The Solar dynasty and its kings did exist and Dasharatha and Rama belonged to this dynasty which was founded by Iksvaku.
2. Rama's birth, student life, marriage, and his journey to the forests are historical facts.
3. *Vanaras* as monkeys is a distortion. These were people living on the outskirts of cities or in the forests as tribes. The word literally means forest dwellers.
4. There was and still is an island called Lanka. There is ample archeological evidence both in Sri Lanka and in the preserved caves of Ellora to corroborate the Kingship of Ravana and the war between Rama and Ravana.
5. To the west of Kanyakumari (the tip of the Indian Peninsula), there is the temple of Rameshweram, where Rama built a Shivalinga and offered prayers to Shiva before building the bridge to Lanka. The bridge is still there.
6. The remains of the cities mentioned in the *Ramayana* are still present. It is believed that Lahore was founded by Love, son of King Rama and Kasur[5] by his other son, Kush; whereas Takshashila (also spelled Taksshila) was founded by Bharata's son Taksya.
7. Several tribes described in the *Ramayana* such as Bhils and Asuras still exist in India.

8. Many kings and the tribes had animal emblems on their flags. The three tribes mentioned in *Ramayana* had monkey, bear and bird as their emblems on their respective flags.
9. Almost all the regions of India, Sri Lanka and many other countries in Asia have folklore and local traditions related to Rama's story.
10. Rama never coveted lands of the vanquished kings. King Sugriva was given his brother's kingdom and after Ravana's death, his brother Vibhishana was crowned as the king of Sri Lankas. Rama just wanted to come back to his motherland—Ayodhya. He specifically mentions that Mother and Motherland are greater than heaven.[6]
11. To question the historicity of Rama is to question all literature and literary evidence for most of the facts of the key events in world history. In this case; literature, archeology, astronomy and local tradition, all corroborate the significant historical events of Rama's life.
12. During the month preceding Diwali, Rama's life story is dramatized for ten days. This is called *Ram Lila*. It is not only celebrated in India but is also dramatized in several neighboring countries such as Indonesia.
13. Archeology has yielded much since Prof. B.B. Lal began excavating the '*Ramayana* Sites' in 1972. Mandated by the Supreme Court of India, excavations of 2002-03 indicate that the habitations at Ayodhya go back well before 1,000 B.C. (possibly between 1980-1320 B.C.).[7]

Women in the **Ramayana**

Women in the *Ramayana* played important roles. Some of the most famous women were Sita, Arundhati, Shabri, Sulochana and Mandodari besides the three queens of King Dasharatha.

Sita was the wife of Rama who is considered to be the symbol of chastity and austerity. After being kidnapped by Ravana, she spent one year in seclusion in an orchard, living under extreme conditions. Her nobility, loyalty and restraint have been a source of strength, guiding Hindu families for centuries.

Arundhati was the art and music teacher in Vasishtha's *Gurukula*. Living a simple, austere life with her husband Vasishtha, she is considered to be a role model for teachers.

Mandodari was Ravana's wife. She was also his counsel. She tried to persuade him to return Sita to her husband Rama. She warned him about the dangers of warfare because it destroys the fabric of society and leaves

children fatherless to be raised by widows. This war was especially ill-advised because it was for a wrong cause.

Sulochana was Ravana's daughter-in-law. She also strongly advised her husband Meghnaad to abandon the war.

There were female philosophers such as Gargi, Anasuya and Maitreyi who took part in the public discourses. The *Ramayana* mentions the famous debate held in the court of Janak—the King of Mithila. Besides several other philosophers of that time, Gargi and Yajanvalkya participated in that debate.

Dating the *Ramayana*[8]

Relevance of Astronomical Data to Date the Key Events

"Valmiki, who wrote the *Ramayana*, was a contemporary of Rama. While narrating the events of the epic, he has mentioned the position of the planets in the sky at several places. Using recent planetary software, it has been possible to verify that these planetary positions actually took place precisely as specified in the *Ramayana*. Not just a stray event but the entire sequence of the planetary positions as described by Valmiki at various stages of Rama's life can be verified today as having taken place."[9]
"This information is significant, since these configurations do not repeat for lakhs of years and cannot be manipulated or imagined so accurately, without the help of sophisticated software. The inference that one can draw is that someone was present there to witness the actual happening of these configurations, which got recorded in the story of Rama." [10]

Ramayana in the Later Literature of India and Other Asian Countries

Kautilya, the advisor of Chandragupta Maurya considered *Ramayana* and *Mahabharata* as history. In his famous book—*Artha Sastra*, one of the chapters deals with discipline and virtues of a king. In this chapter, Kautilya advises "shunning the vices of lust, anger, greed, vanity, haughtiness and excessive joy, for Ravana perished because he was too vain to restore a stranger's wife; Duryodhana because he would not part with a portion of his kingdom."[11]

Tamil Sangam literature (of 200 B.C. to 300 A.D.) also mentions the exploits of Rama. A verse in the *Purananuru* collection says that when Ravana was carrying Sita away, she dropped her ornaments as clues to her whereabouts.

The story of Rama is mentioned in three Buddhist *Jatakas* which form part of the *Khuddaka-nikaya* belonging to the 3rd century B.C. The *Dasharatha Jataka* mentions the fact that Rama gave his sandals to Bharata to rule the kingdom on his behalf. This happens when Bharata came to ask Rama to return to Ayodhya but Rama refused to break the promise given to his father. Many original Buddhist texts are lost to India but they are preserved in the translated works in China and Tibet.

The *Ramayana* has been written in many languages. The Jaina *Ramayana*s are in Sanskrit, Prakrit, Apabhramsa, and Kannada. Sandhya Jain gives a list of many versions written by various Jaina scholars including "*Ramayana* of Svayambhu in Apabhramsa (8th century); *Mahapurana* of Pushpadanta in Prakrit (10th century); *Pampa Ramayana* by Nagachandra (11th century); and *Jina Ramayana* by Chandrasagar Varni (19th century). Nagachandra records a tradition that the ancient inhabitants of Kishkindha were not monkeys but a tribe whose banner carried the insignia of a monkey."[11]

A 7th century literary text by Kumaradasa of Sri Lanka includes the episode of *Janaki-harana*.[12] In the 11th century, Alberuni noted: "...*Setubandha* means bridge of the ocean. It is the dike of Rama, the son of Dasharatha, which he built from the continent to the castle Lanka. At present, it consists of isolated mountains between which the ocean flows."

This clearly suggests that by the 11th century, most of the bridge was under water and a few mountains in some adjacent islands were showing. The 13th century Italian traveler, Marco Polo, refers to '*Setuband Rameshwara*', the bridge relating to Rama. The coins by Tamil kings of Nallur in Jafna (Sri Lanka), who ruled between the 13th and 17th centuries, also affirm the existence of Rama Setu.

The *Ramayana* has been an essential part of arts and drama disciplines since the earliest of times. The earliest terra-cotta depiction of a *Ramayana* scene is found in Kausambi in the modern state of Uttar Pradesh. The terra-cotta image (dated 2nd century B.C.) shows Ravana abducting Sita and the latter throwing her ornaments on the ground to help Rama to trace her.[13] This is the timeframe when the followers of Buddha began to depict Buddha's life, and he began to be portrayed in stone sculptures such as the Stupa of Sanchi and Bharhut in the modern state of Madhya Pradesh. A similar terra-cotta sculpture of Rama found in Nachara Khera, Haryana is in the archives of the Los Angeles County Museum. There is an inscription in Brahmi script on the sculpture. It dates back to the 3rd century A.D.

"Rama's travails made their way to China, Tibet, Mongolia, Japan, Philippines, Thailand, Malaysia, Indonesia, Cambodia, and found representation in the visual and plastic arts."[14]

NASA's Discovery

A strange thing was discovered when NASA was digitally mapping pictures of the earth from one of its satellites. These sets of NASA photographs generated great interest among archeologists and the geologists.

The space images taken by NASA reveal a mysterious ancient bridge in the Palk Strait between India and Sri Lanka. The recently discovered bridge currently named Adam's Bridge is made of a chain of shoals, c.18 mi (30 km) long.

The bridge's unique curvature and composition by age reveals that it is man made. The legends as well as archeological studies reveal that the first signs of human inhabitants in Sri Lanka date back to a primitive age, several millennia back. This information is a crucial supporting aspect for insight into the events narrated in the *Ramayana*.

In this epic, there is mention of a bridge, which was built between Rameshweram (India) and the Sri Lankan coast under the supervision of a dynamic and invincible King Rama. The material used was shoals which do not sink. Local traditions and folklore of the entire subcontinent not only mention the Rameshweram Bridge, but they dramatize the event every year. NASA estimated that Rama's bridge is 170 million years old. Based on the internal evidence of the *Ramayana* and the astronomical references, King Rama goes back about 7,000 years. There is a discrepancy of millions of years. It is possible that either the shoals used for building the bridge were several millions years old or the bridge was made over the sand bar spotted by NASA.

7,000 years ago, the sea level was ten feet lower. The rising sea level has encroached upon the coastal land of India by 1.5 kilometers. Since the last ice age receded, the sea level has been continuously rising. This fact suggests that the bridge was over a shorter distance and was approximately ten feet above the then sea level.

Global warming and the rising sea level are continuously encroaching on coastal land. Many countries with long coast lines are worried about their cities and settlements close to the coasts.

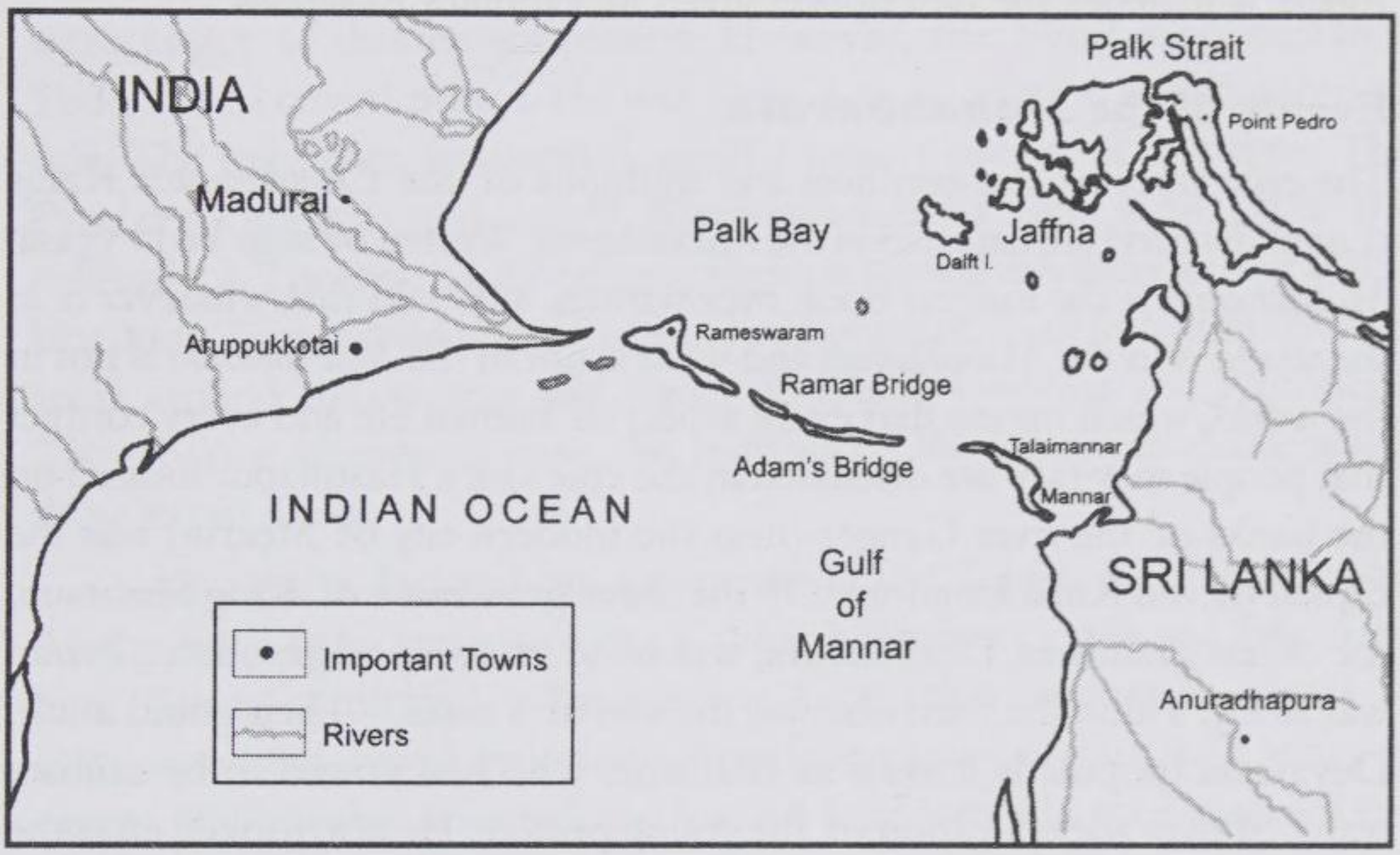
Even before the pictorial evidence revealed by NASA, the existence of the bridge was known to many Europeans. "A 1747 map made in the Netherlands and known as the Malabar-Bowen Map shows the land connection between Rameswaram and Sri Lanka. A 1788 edition of the map called the *Map of Hindoostan or the Mughal Empire*, available in the Saraswati Mahal Library in Thanjavur and made by James Rennell, the first

surveyor general of the East India Company, also shows a land route between Rameswaram and Talaimannar tagged 'Ramar Bridge'."[15] Another 16th-17th century map showing a land-link between India and Sri Lanka appears in *Ramanathapuram Gazetteer*. The land link bears the name *Sethu Palam*.

Adam's Bridge—Rama's Bridge

NASA calls Adam's Bridge a sandbar that nearly closes the Palk Strait. Indian local traditions and literary accounts call it Rama's bridge.

A detailed map of the bridge linking India and Sri Lanka



Construction of the Bridge

The bridge was constructed using coastal sand, lime stones, boulders and coral reefs and more sand was added on the top. The bridge is 2.5 kms to 4.5 kms in width and has embankments on both sides. The seabed around the bridge is not flat. It has ridges. It matches the description about the construction of the bridge given in Valmiki's *Ramayana*.

Bhavabhuti, in his play *Mahaveera-Charita*, describes the actual construction of the bridge in two places. Once when Mandodari pleads with her husband to return Sita to Rama, she describes how Rama's army has constructed the bridge. The second description of the same is given when Sita asks Lakshmana as to how they made the bridge to Sri Lanka.

A recent survey by the Geological Survey of India also confirms the technique used to make the bridge. A close up of the Setu shows firm

edges on both sides (to prevent erosion), proving that it is a man made structure. After the NASA discovery, the National Remote Sensing Agency under the Ministry of Space, Government of India, has also published satellite photo images of the formation of the bridge between Dhanushkodi and Talaimannar Island in Sri Lanka. The report by the Geological Survey of India was based on several surveys done by the department with underwater sensors and the use of side scan sonar and magnetic survey techniques.[16]

The investigations by the Geological Survey of India has revealed that the bridge is not a natural formation but a constructed causeway. The pattern of construction and the curvature also indicate planned layers. Again, it matches the description given in Valmiki's *Ramayana*

Events of the *Mahabharata*

The epic story of the conflicts and triumphs of the *Chandravanshi* Kings (Lunar dynasty) are narrated in the *Mahabharata*. Written by sage Veda Vyasa, *Mahabharata* is the longest book ever written. It is said that whatever is in the world is in the *Mahabharata* and what is not in the *Mahabharata* is not in the world, which means that every aspect of human life and every conflict that people may face are discussed in the epic story. Hastinapur located on the banks of the river Ganges (near the modern city of Meerut) was the capital of the Kuru kingdom. Of the three grandsons of King Shantanu, the oldest grandson, Dhritrashtra, was blind, the second grandson, Pandu was sickly. Vidur, the third one was the son of a maid.[17] Their grand uncle, Devavrata (popularly known as Bhishma) who had vowed to be celibate watched over the education of the young princes. He also looked after the sovereignty and the integrity of the kingdom. Advised by the ministers and advisors, Pandu the second son succeeded to the throne because Dhritrashtra was blind. However, after the death of Pandu, Dhritrashtra became the King.

Pandu had five sons—Yudhishthira, Bhima, Arjuna, Nakula and Sahdeva. They were known as Pandavas. Along with their mother Kunti, they came to live in Hastinapur. Kurus and the Pandavas had their education under the guidance of their Guru, Dronacharya. They learned a wide variety of subjects with special emphasis on language, royal duties and protocol, administration, morals and warfare. Bhima and Duryodhana became experts in fighting with the mace while Arjuna became an expert in archery. It is said that he was unrivalled in archery at that time. Duryodhana and his brothers became arch enemies of the Pandavas. Traditionally, it was the oldest son and the ablest one who was entitled to the throne. Yudhishthra

was the oldest and the ablest but Duryodhana contended the title of the crown prince because he was the eldest son of the ruling monarch.

The Kurus made several attempts at the life of the Pandavas. Bhima was especially targeted several times. They were invited to live in a palace made of lac (hardened form of wax, also known as shellac) which was later burned. This was the most heinous crime. Thereafter, the Pandavas disappeared and traveled incognito from place to place. In their absence, Duryodhana was declared the crown prince.

Drupad, the King of Panchala kingdom invited many royal princes from various kingdoms to test their archery. The best archer would marry his daughter Draupadi. Arjuna won the contest and Draupadi garlanded him. The news that the Pandavas were alive reached Hastinapur. The Kurus were angry at this development. However, the blind king declared Yudhishthra crown prince. He was given a small part of the kingdom to rule. The precedent for partitioning the nation was set at that time. The Pandava kingdom was called Khandavaprastha (arid land, unfit for cultivation). Through hard work, the Pandavas made this place a prosperous kingdom. They named their kingdom Indraprastha. Their kingdom covered areas around the present day states of Delhi, Haryana and Rajasthan. Though in a dilapidated state, the remains of the Pandavas' castle is still there in old Delhi.

Yudhishthira declared his supremacy at the *Rajsuya Yajna*[18] ceremony. All the kings from various parts of the subcontinent came and felicitated him. Kurus continued to be jealous. Later, they invited Pandavas to Hastinapur and duped them into a fraudulent game of dice. In a series of games, Yudhishthra wagered and lost his kingdom. He even wagered the freedom of his brothers and his wife. Kurus insulted Draupadi by trying to disrobe her. This was done in the presence of all the elders and the family members.

Draupadi was furious at the unethical and disgraceful silence of the elders. She questioned how those who could not protect the honor of the invited queen of another kingdom would protect their own subjects. She was a wife and a queen and not the possession of her husband. Only possessions can be wagered. The kingdoms belong to the subjects and the ruler is only a representative of his subjects, he could not place his kingdom as a wager. Those who allowed this heinous act violated all principles of morality, *Dharma* and diplomatic protocol.

Even though the Pandavas accepted 13 years' exile and the condition of remaining incognito for the last year, this did not satisfy the Kurus.

The blind King continued to ignore the deadly consequences of rivalry between his sons (Kurus) and the sons of Pandu (Pandavas). His Prime Minister Vidur could neither stop the conspiracies by the sons of Dhritrashtra nor the subsequent war. Yadu Prince, Krishna spent several months trying to bring a peaceful solution to restore some territory to the Pandavas. However, nothing seemed to work at this point. Eventually all this led to a war of mammoth proportions between the cousins. It is said that kings from far and near participated in the war which lasted for 18 days. The heroic Pandus won and all the Kurus died – once again establishing the victory of the right over evil. Central to the story is the sermon of Lord Krishna given to Arjuna, the third son of Pandu. At the battlefield of Kurukshetra, Arjuna saw armies of both the sides. He was dismayed and vowed not to fight his own kith and kin. Krishna reminded him of his duties as a soldier and advised him to engage in detached Karma. This sermon is known as *Srimad Bhagvad Gita*[19]—the song celestial, a masterpiece of spiritual wisdom.

The *Mahabharata* and the *Ramayana* have been translated in almost every language of the world and these have been presented repeatedly on the stages of several countries. One of the most famous presentations of the *Mahabharata* was by Peter Brooke. Summarized and dramatized in 11 hours, the play was the longest running drama with two intermissions. Peter Brooks also made a 4 hour long movie. Later, the story was presented in a television serial—*Mahabharata*, produced by B.R.Chopra.

During the period described in the *Mahabharata* the following historic developments took place.

a. Emergence of some new states in the Madhyadesa between the mountain ranges of the Himalayas in the north and the Vindhyas in the center. Most of the rulers of the kingdoms of the Indian subcontinent started maintaining diplomatic relations and exchanged ambassadors. Matrimonial alliances strengthened several kingdoms.[20]

b. Monarchy grew as a form of Government. The monarch was helped by the representatives of the people and advisors. The chief counsels were usually Brahmin sages. The King was assisted by the prime minister. During this time, often the advice of the ministers and the Brahmin counsel was ignored and the kings used autocratic powers. For such despotic rulers, the word *Adharmic* was used.

c. Although *Varna Dharma* played a role in the development of socio-economic life, there was hardly any rigidity about the birth castes. Karna, the king of Anga Desha was known as the son of a weaver. Vyasa was

the son of a fisherwoman and Shantanu married the daughter of a tribal. Bhima married Hidamba, a tribal princess.

d. Pandavas' castle near Delhi still exists and there is a reference in the story of a palace made of wax. These bear testimony to the architectural achievements of the people in those remote times. This period saw the growth in industry and military arts. Details of the deadly weapons mentioned in the epic testify to the advanced industrial development. The time frame of *Mahabharata* suggests that this period corresponds with the technologically advanced stage of civilizations in the other valleys between the River Indus and the River Ravi.

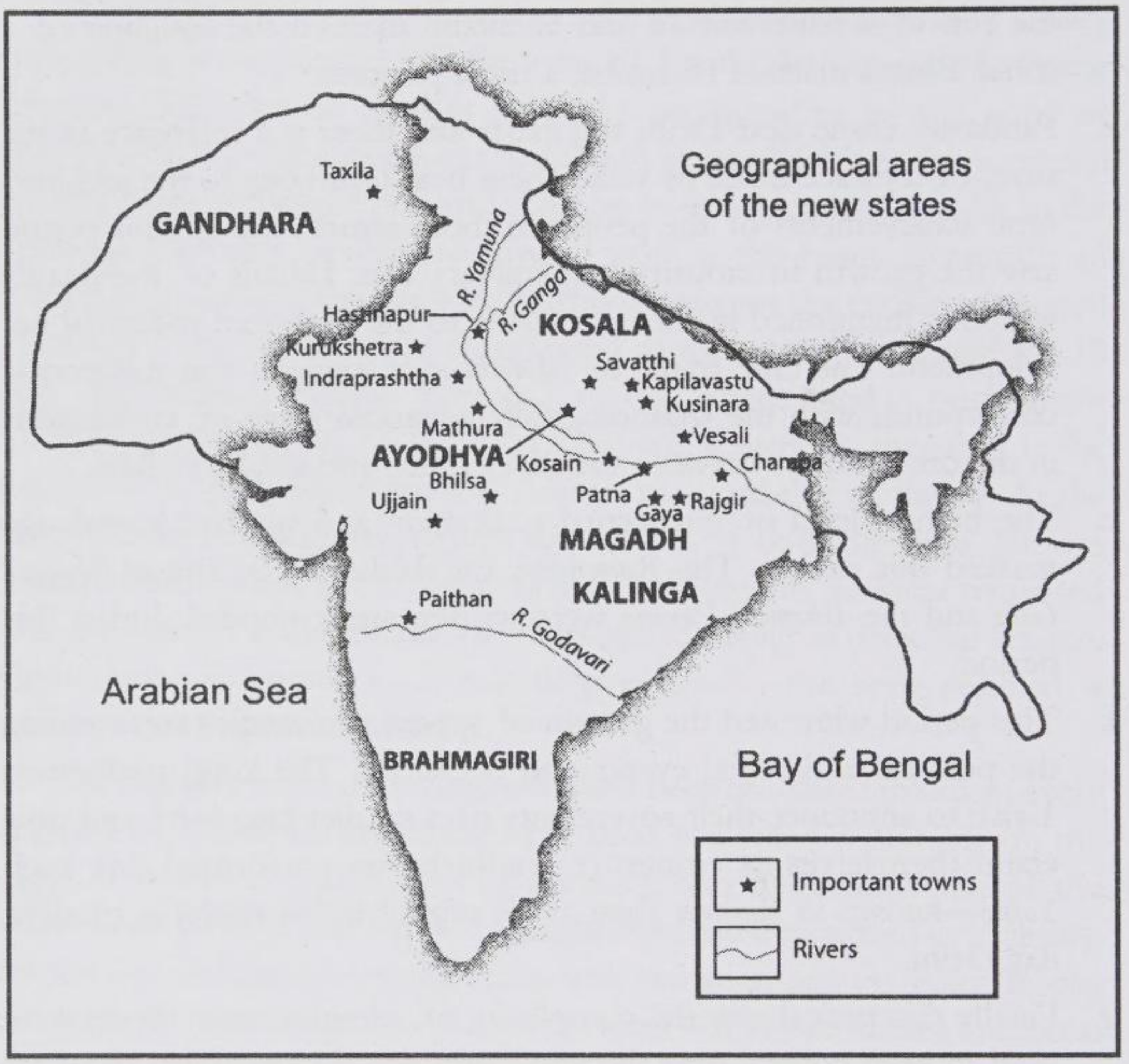
e. The highest level of intellectual attainment and spiritual knowledge marked this period. The *Ramayana*, the *Mahabharata*, *Srimad Bhagvad Gita* and the *Bhagvad Purana* were written and compiled during this period.

f. This period witnessed the growth of special ceremonies surrounding the political and social events and occasions. The kings performed *Yajnas* to announce their sovereignty over smaller kingdoms and proclaim themselves as emperors. Yudhishthira performed one such *Yajna*—known as *Rajsuya Yajna* at his capitol Indraprastha in modern day Delhi.

g. Finally this period saw the complexity of administration. Spies were used to keep control over the vast territories. Ambassadors were exchanged among various kingdoms. The laws of *Dharma* were followed and even the battles were fought according to preset rules. Some of these rules of warfare are similar to the code followed by the International Red Cross Society.

Geographical Background of the New States[21]

Several other highly civilized kingdoms were flourishing during the times of the *Mahabharata*. Some of the kingdoms were Kosala (Avadha – eastern U.P.), Videha (north Bihar), Magadha (south Bihar), and Anga (parts of east Bihar and Bengal). After the war, the center of power shifted from the west to the east and towards the middle of the country. Some Kings from the Kuru and the Panchala dynasty conquered the southern kings, such as Pundras, Pulindas, and Andhras. (Refer to the map at the beginning of the book). These kingdoms existed independently of each other but during the wars, some of them formed alliances and federations. A great example of this was at the time of the *Mahabharata* war at Kurukshetra when the rulers of Kashi, Kosala, Magadha, Matsya, Chedi and Mathura



formed an alliance to support the Pandavas and the rulers of Pragjayotisha (Assam), Chinas and Kiratas of north east, Kambojas, Shakas, Sindhu, Madras, Souviras, Kaikeyas of the northwest, Dakshinpaths and Andhras of the South, Avantis of the Madydesha formed a federation to support the Kurus. During the earlier period of the Lunar dynasty, King Bharata[22] ruled many of these kingdoms. He changed the name of the country from Aryavrata to Bharata. Since then, the land between the Himalayas in the north and the tip of the Deccan peninsula reaching the Indian Ocean in the south, Arabian Sea on the west and the Bay of Bengal in the east is referred to as Bharatavarsha.

Society and Polity During the Epic Age

Grassroot Democracy Grows in India

"Loka" is derived from the ancient Sanskrit word, *lokasamgraha*, which means: unity of the world, interconnectedness of society, and the duty to perform action for the benefit of the world.

This term denotes some of the key democratic concepts and ideas about a global society.

As mentioned earlier, monarchy evolved as a normal form of government to stay for several centuries to come. When the necessity to elect a king was felt, communities also had to decide the need to establish some rules for conducting public affairs. The *Aitareya Brahmanas* traces the origin of monarchy to the fight between *Devas*[23] and the *Asuras*. *Asuras* were defeated and they moved towards north-northwest of the subcontinent. There are some other terms mentioned in the same text, terms such as *Adhiraja* (less than a king), *Raj Adhiraja* and *Samraat* (meaning the emperors). Special Vedic ceremonies were held when the king was crowned or when he extended his boundaries. Although monarchy was firmly established by the time of the epics, the kings did not enjoy total power. People were given a voice in the election of the king and his administration; they exercised their rights by putting limits on the powers of the kings. The king was dependent on his ministers and was assisted by two chambers of committees. *Samiti* or the council comprised aristocracy, royal relations, subject rulers, military leaders and the priests. The other committee was *Sabha* and it was made of common people. *Contrary to common belief, all castes were represented in this committee.* There were advisors, officials and ambassadors, mentioned as *mantrins, amatyas* and *dootas* in the post-Vedic literature. The court of the king was decorated by the presence of the enlightened people known as *Ratnins* (gems). It may be noted that even around 2,500 B.C. there existed a civilization that was highly complex in its political workings and public administration. We can draw a parallel between these and the limited monarchies of the modern times. Besides these details, there is a revealing and enlightening chapter about state craft[24] and its essential aspects in the *Mahabharata*. There are other chapters in the *Mahabharata* which have extensive discussion on the duties of a king. The last chapter gives Bhishma's views on *Raj Dharma* (king's duties). Vidur's and Vyasa's views on the subject are seen almost all through the epic.

Within the framework of political policy based on ethics, the kings used to find peaceful solutions to issues between the kingdoms. The exchange of messengers was a matter of routine. The *Mahabharata* mentions that, "alliances were courted (by kings) and they took great delight in reducing their foes, and saw to their own material prosperity."[25]

Weapons and the Rules for Warfare

Various types of weapons used during the *Mahabharata* period were made of iron. Spears, bows and arrows, mace, swords and tridents were used.

Years of practice were required for learning and becoming experts in the use of these weapons. Chariots, elephants and horses were used by the armies. There were regiments of foot soldiers as well. There were elaborate rules to be observed in the battlefield.

Some of the rules are given below:

- Mace and sword cannot be used to hit the opponent below the waist.
- Fighting will cease after sunset and people of opposing armies can meet freely.
- An unarmed, wounded or fallen soldier cannot be attacked.
- A person who surrenders will not be attacked.
- Women, children and civilians will not be attacked.
- Battlefield would be away from inhabited places.
- In the evening both sides will take care of their wounded soldiers.
- Several soldiers will not stage a group attack on one soldier.
- Farmers, merchants and the teachers were not supposed to participate in a war.

Socioeconomic Life

The growth of economic life is evident from the progress made in the field of agricultural and pastoral pursuits, extensive knowledge of metallurgy and the use of metals, growth of industries and multiplicity of professions. In *Yajur Veda*, there are references to agricultural operations such as plowing, sowing, reaping and threshing, different kinds of crops and even the seasons when these are grown. The same source gives us details about the people engaged in various vocations such as barbers, jewel makers, fire rangers, fishermen etc. and industries making ropes, dyes, chariots, boats and nails to mention a few. There is a reference to ships with hundred oars which were considered leak proof. This also suggests that these people had maritime activities. The metals like gold, silver, lead, bronze, iron and tin were used. Gold coins were in circulation. The workers were organized in craft guilds and their head was known as *Sareshthi* (the best). Economic growth of this magnitude resulted in many social changes. Notable among them were multiplicity of *jaatis* (sub-castes), especially among the *Vaishyas*. Each occupational group under the banner of a *Jaati* served as a guild and trained their children in the same trade. However, for all the *jaatis* (also the tribal children), early education included knowledge of language, math, sciences, fine arts and the topics related to *Dharma*.

Learning and Education

This was a period of great intellectual achievements. It was made possible by improvements in the methods of teaching and opportunities for open academic discussions in *Gurukulas* and the *Parishads*. Strict discipline was imposed on the students and besides giving the students education, moral values were inculcated and the students were prepared for upheavals of life. The students from all classes led a life of dedication, humility, celibacy and physical simplicity. For students from the Brahmin and *Kshatriya* class, the schooling was residential. Besides this, there were traveling teachers called *Charkas* who used to enter into literary and ethical discourses with the common people. Kings often organized their own scholars in study groups and would invite talents from the neighboring kingdoms. The one organized by King Janak of Videha to which he invited all learned men and women from several kingdoms. A famous participant was sage Yajnavalkya who had to confront eight leading philosophers discussing metaphysical questions.

As mentioned earlier, there were intellectual women such as Gargi, Anasuya and Maitreyi who also took part in such discourses.

Women in *Mahabharata*

Daughter of Drupad, the King of Panchala, Draupadi was the queen of Indraprastha. When she was insulted by the Kurus in the general assembly, she reminded the elders of their duty towards the protection of their subjects including women. She also emphasized the royal protocol of showing due respect to visiting monarchs and their queens. At times when Arjuna and his brothers were inclined to live like hermits for the rest of their lives, she encouraged them to follow the path of royal duty and duties assigned to the soldiers. Through all the struggles and problems Pandavas faced, she did not waver from her duties as a wife and as a queen. She played a major role during the war.

Kunti was the wife of Pandu, the King of Hastinapur. She raised her own three sons and her two step sons. From time to time she advised the Pandavas about their *Dharma*. For her wisdom, she is famous in Indian history.

Gandhari was the wife of Dhritrashtra. Since her husband was blind, she remained blindfolded all her life. All her relatives tried to dissuade her from this choice made even before the actual wedding. She never lost her sense of loyalty to her husband.

Yashodha was the wife of Nanda, the chief of Gokul. She raised her adopted son Krishna. She is to be considered the symbol of selfless love. At the age of eight, Krishna freed his birth parents and left Vrindavan for the pursuit of his studies.

Religion and Philosophy

Diffusion of knowledge and the growth of learning resulted in the development of philosophy. Themes such as man's soul, his Karmas linked with self realization and *Moksha* (freedom from the cycle of life and death), man's duties towards his family and the society were logically discussed in the *Ramayana*, the *Mahabharata*, the *Gita* and the *Upanisadas*. There was a growth in the number of ceremonies and *yajnas*. Some parts of philosophy and Yogic practices were highly technical and required the guidance of able teachers. As a result, the number of priests and teachers grew.

Morals (Value System) and the *Mahabharata*

1. When a king is weak or corrupt, the citizens of that country have a right to throw him out of power.
2. Society and wealth are not safe without a strong king.
3. In spite of preset rules of warfare, in a war, *Dharma* did take the backseat; every dirty trick was used.
4. No mercy must be shown to relatives or friends who are your enemies.
5. The foremost duty of a monarch (or governments) is the protection and safety of the subjects. That includes, fair and just laws, adequate army and incorruptible administrators and judges. On the name of ill-defined secularism, post-independence governments in India have allowed distortion of the ideas related to the protection of *Dharma*, the country and the society as a moral duty; these have been the essence of Hindu values and the sacred duties of a king. Kautilya and many other writers of ancient times emphasized that, self defense is the right of a citizen if the government or the king is unable to protect its people.

The last fifty years of the history of independent India has proved the futility and impracticality of *Panchsheel* and other allied views on peaceful coexistence. Krishna in his talk with his brother Balrama emphatically states that in a war between *Dharma* and *Adharma*, no one can remain neutral. Neutrality has no meaning if a country/ kingdom has hostile neighbors or is surrounded by warring kingdoms.

6. Society and the king were supposed to protect the honor of women and if a king failed to do so, other kingdoms intervened.
7. Death comes to all, the brave as well as the cowards. One should die protecting morals and the integrity of one's country.

Epics—Facts, Myth or Fantasy

History books written during the colonial period refer to the Epic Age as the period when the epics were written and it is also conjectured that these epics—the *Ramayana* and the *Mahabharata* were written at different times. Many writers have suggested arbitrary (often conflicting) dates for both the epics. Unaware of the evidence emerging from several primary sources, most compilers of these history books have postdated all the events.

Facts

1. Epic Age refers to the time frame when the events narrated in the epics happened. Both narratives were written by the contemporaries of the main heroes of the literary works.
2. Literary evidence is detailed and complete. Some later interpolations were made in both the epics.
3. Ample archeological evidence is coming to light every day of the excavations referring to the cities, sites, castles, bridges and the battlefields. The scientific testing of dating the artifacts and evidence is getting completed bit by bit. Once that is done, more corroborative evidence will be available. Besides all this, the astronomical evidence is being tested and the final chronology is emerging, and that is much earlier than the western conjectures and the erroneous theories about the chronology.
4. In European history, most of what exists is the literary evidence that too is very sketchy. Nobody has questioned that Hamlet—the Prince of Denmark ever existed or there ever was a Richard the second or third etc. Literary works of Shakespeare are considered sufficient proof. Christ's entire life story, gospel, his message were written bit by bit several centuries later and that is the source of the history of Europe. No questions asked.
5. Literary works of Aristotle and Plato are considered sufficient and complete proof of their existence; however, that of Rama and Krishna are thrown into the categories of myth or concept. This approach wipes out a chunk of India's rich past and deprives Indians of the right to venerate their heroes, *yogis* and *rishis*. References to the places

in each of the epics still exist and many other places are being discovered even as this chapter is being penned down. Complete genealogy of kings and the rulers is being compiled. These events form a significant part of history. These are not legends. (Level 1 and advanced – lessons may include discussion about the discoveries of Dwarka, Rameshwaram bridge, etc.)

6. The heroes of these epics lived some five thousands years ago. Historical people cannot be considered mythical. Their stories as in the epical narrations can be embellished with allegories, exaggerations, glorification etc. But in summary view, what is essentially history is neither myth nor fantasy.
7. The astronomical references in the *Mahabharata* have checked out with the help of computers. Verification of these references involves so much complexity of calculations that even 50 years ago, the astronomers were not able to reproduce these events mentioned in the *Mahabharata*.
8. Panini mentions both the reign of King Bharat and the *Mahabharata*.[26] In the 4th century B.C., Chanakya refers to the story of Krishna's birth.
9. Megasthenese mentions that the Sourasenoi (Surasenas or Yadavas) worshipped Herakles (Krishna). Their two great cities were Methora (Mathura) and Kleisobora [Krishnapura (?)] on the navigable river Yobares (Yamuna). He also mentions that Herakles sent his daughter Pandaia to rule over the kingdom of Mathura (Madurai) on the southern sea.
10. Kurukshetra, Indraprastha, Kanchipuram, and Anga Desha still exist. Many kingdoms mentioned in the *Mahabharata* such as Sindhu Desha, Madra Desha, Gandhara etc. continued as prosperous kingdoms up to the 3rd century B.C. and are mentioned in the literature of later days.

The following pages meant for further research and enrichment activities shed a light on the primary sources of history determining the historicity of the *Mahabharata*. These discoveries and technical evaluation of the artifacts not only prove that the Kuru and Pandu dynasties existed but also bring to us a much earlier chronology of the events.

Sources Dating its Historicity and other Details given in the *Mahabharata* [27]

Story of Krishna

Krishna was born in Mathura. Son of Devaki and Vasudeva, he was raised by Nanda and Yashodha in a small village – Gokul. At a very young age he

overcame obstacles and freed his parents and his grandfather from the prisons of Mathura. After the age of eight, he was sent to a residential school to study under a teacher, Sandipaani.

After his meeting with his cousins – Pandavas, he remained by their side most of the time. He guided them in difficult times and became the mentor and friend of Arjuna. During the difficult thirteen months before the war, he made many trips to Hastinapur trying to bring a peaceful solution to the conflict between Pandavas and the Kurus.

Krishna and His Sermon to Arjuna[28]

Srimad Bhagvad Gita—The Divine Song was a sermon given by Krishna to his friend and disciple Arjuna at the battlefield of Kurukshetra some 5,000 years ago. Running into over 700 verses, *Gita* lays down in a summary form, the foundations of *Dharma* and how a man can uphold it.

As the Pandava and Kaurava armies faced each other at the battlefield, Kurukshetra, suddenly Arjuna asked Krishna to take the chariot to the middle of the opposing armies. Seeing his relatives among both the armies, he was confused and distressed and wanted to stop the war. He sought Krishna's advice. Krishna's advice to Arjuna is a landmark discourse on the responsibility and restraints for human behavior. This short sermon is known as *Srimad Bhagvad Gita*. It is the world's oldest book explaining complex folds of the mind and how the mind can mislead people as also it can help them in their motivation and performance of Karma.

Krishna reminded him of his duty as a warrior and as a protector of righteous conduct. As he instructed Arjuna, he also instructed all of posterity as to how to do one's duty when in doubt.

Krishna first explained about the soul[29]—a tiny part of the Divine (the cosmic energy itself) which is in the body. Every living thing—animate or inanimate has *atman*. The *atman* gives life to flowers, people, animals, trees, insects, sealife, birds etc. The body goes through several changes from birth to decay to death. It is the *atman* which gives life to our body. When a living thing dies, the *atman* does not die. It cannot be killed by a weapon, fire, water, wind or anything else. It goes back to its original source and merges in the collective consciousness or it comes back in different forms. Depending on the quality of one's life and deeds, one is born again. This is called reincarnation.

Since all living things on the earth share that divine spark called *atman*, all are equally dear to the Creator. We can see it for ourselves that the wind, water, fire, sun or any of His material powers do not discriminate

against any one. Some people here and there mistakenly or wrongfully create the myth that these powers or the Creator *has chosen people*. This myth causes clashes among people.

In modern psychology, *atman* is referred to as awareness or consciousness.

Arjuna asks Krishna why mind wavers in the face of duty and emotions and Krishna explains to him that the mind is forever restless and out of control. A yogi always practices to control it. Leaving all the emotions behind one should do one's duties and rid the society of its unrighteous people (those doing deeds which are illegal and inimical to society). Such an action is called yogic action. During this explanation, Krishna analyzes folds of consciousness (such as the discriminating power of the brain, intelligence, ego, judgment and awareness). He then describes the world, nature and how one should relate to them. He explains how a confused, restless mind causes anger, lust, greed and attachment to things which when not checked can destroy the mind itself. Some people practice yoga and meditate on the Creator, some do it to attain knowledge of the universe and the Universal Spirit, and some simply devote themselves to society and God. Above all this is *Karma Yoga*—action performed as a duty and with full knowledge of its consequences. *Bhagvad Gita* explains on the one hand, the nature of mind, on the other, it discusses the nature of the world and how through their actions people create bondage to the world.

He discusses the yogic discipline as applied to action, as applied to the acquisition of knowledge, as used during different phases of life. This is the first treatise ever written on psychology and the most complete critique on the ideal relations between all types of life on earth.

For thousands of years, Indians have believed in the divinity of Shri Krishna[30]. For Indians and scores of philosophers all over the world, he was a *Karma yogi* par excellence, who provided a framework of action oriented philosophy of life in the form of *Bhagvad Gita*.

As a great psychologist, philosopher and a guide, his words still help us when we are in doubt. When Arjuna asked Krishna for guidance, Krishna playing the role of his charioteer began his sermon. Thus speaking to Arjuna, he advised all people, because what he said has been relevant for all ages—the past, the present and the future. Billions of people have read his message translated in different languages.

Joseph Campbell once said, "I do not know if Krishna was God or not but whoever had written the *Gita* was no less than a God."

He was the first psychologist and the first philosopher the world has ever known. But some people to confuse others have raised questions as to whether Krishna was a historical or mythical character and whether the war of *Mahabharata* was actually fought. Surprisingly, the historicity of both the facts is verifiable through the study of the primary sources of history.

Historicity of Krishna is a moot point at this time. As Rajaram aptly points out, "if we look beyond the myths accumulated over millennia, we can get a clear picture of who Krishna actually was. He emerges as a human figure — a practical philosopher par excellence — who moved away from the ritualistic practices of the Vedic religion of his time to the action-oriented Sankhya philosophy, embodied in his philosophy of *Karma Yoga* — of the *Bhagvad Gita*, which till date remains his transcendent legacy. Contrary to popular imagination, which portrays him as a romantic hero, the image of Krishna that we obtain from ancient sources is that of an impeccable statesman. He was an austere and studious man, whose main concerns were political stability and ethical and religious reform."[31]

Centuries later, Panini's grammar and the *Chhandogya Upanisada* mention Krishna. This provides evidence for his historicity and this is independent of the accounts given in the *Mahabharata*.

In his book, *Search for the Historical Krishna*, Rajaram concludes, "that we are on fairly firm ground when it comes to the historicity of Krishna and the *Mahabharata* war. There is sufficient evidence available now to suggest that Krishna was indeed a historical figure, who lived about 5,000 years ago. This evidence is not just literary but also archeological, geographical as well as astronomical."

Chronology – Dating the *Mahabharata* Period

Chronology of the major events of the *Mahabharata* poses problems. Up until six decades ago, internal literary evidence from the *Mahabharata* was not properly understood and evaluated.

Many invaluable records were destroyed during the medieval period of invasions and turmoil. Oral tradition was lost with the passage of time and the universities such as Nalanda and Takshashila were destroyed. These universities were archives for ancient manuscripts. Many British linguists could not fully comprehend the evidence and information given in the epics. Many European historians misinterpreted the records and postdated the chronology of the main events of the history of Ancient India. With this background, it has been hard to set the exact timeline.

Some scholars also believe that as long as it is realized that the event is an ancient one, its importance does not lie in knowing the exact moment it occurred, but is in the message that the story gives. However, scholars from various disciplines and scientific fields now agree that the correct history of mankind should attempt at getting a reasonably accurate timeline of the key events in the history of mankind.

The determination of the time of the *Mahabharata* war is important for historians in order to link the evolution of civilization with the evolution of natural history. In the last six decades, geologists, archeologists, marine archeologists, mathematicians, computer scientists and the astronomers have brought a great deal of information. After cross referencing and corroborating this data, some idea about the chronology has emerged.

In the following paragraphs, we will examine all the evidence coming from various disciplines.

Internal Evidence from the *Mahabharata*

The timing of the events in the *Mahabharata* itself is given by referring to the *Yuga* and by describing the sky charts.

Kaliyuga's arrival during the battle at Kurukshetra gives us some ideas. *Kali Yuga* had arrived while *Dwapar Yuga* was still going on. Veda Vyasa says that the war happened during the transition (of about 200 years) between *Kali Yuga*[32] and *Dwapar Yuga*. Kali began in 3,102 B.C., and the war began in 3,067 B.C. These two dates are within the transition period. After the first 9 days of the war, most of the preset rules of warfare were violated. This also suggests that *Kali Yuga* (the age of darkness and *Adharma*) had already started when the war took place.

The Role of Archeo-Astronomy

Archeo-astronomy is also known as sky charting. Pioneered by D.K. Hari, it has been widely used by many researchers in this field to date the historical events. It is the characteristic of the ancient literature of Indian Civilization that the descriptions of many events are accompanied by the night sky observations of the time of the event. When these planetary configurations are fed into the computer using the planetarium software, it yields the approximate dates of the events. Thus, this new science gives historians a scientifically acceptable method of dating events.

The *Mahabharata* gives about 150 references to the position of the stars, the planets and the comets.

There are also references to three sequential eclipses and some other unfavorable planetary positions before the war began. With the help of the computers, scientists have recreated the sky epigraphy[33] and checked several other references made by Vyasa. They have found that over 140 references are consistent with almost all of the sky inscriptions[34] observed by Veda Vyasa. These references include winter and summer solstices, equinoxes, planetary positions and the sequence of eclipses at the time of certain events. After a careful study of this information, scientists have arrived at a time frame of the important events.

A few of the key dates[35] are given below:

- Krishna's departure for Hastinapur September 26, 3067 B.C.
- Krishna's arrival in Hastinapur on September 28, 3067 B.C.
- Full moon (lunar eclipse) September 29, 3067 B.C.
- Solar eclipse on (the new moon) October 14, 3067 B.C.
- Beginning of the war on November 22, 3067 B.C.
- Bhishma's demise, January 17, 3066 B.C.
- Balrama sets off for pilgrimage on river Sarasvati on November 1, 3067 B.C.
- Balrama returns from pilgrimage on December 12, 3067 B.C.

Geological Evidence for the Timeframe

During the *Mahabharata* war, Balrama made a pilgrimage along the Sarasvati River. He starte ' from *Dwarka*, close to the delta of the rivers Sarasvati and the Indus. He went up north going past Kurukshetra at the confluence of Drishadvati and Sarasvati. Sarasvati was still a mighty river. On the banks of this river, there were great technically advanced urban centers. Sarasvati started drying up after the shifts in the course of its two tributaries – Yamuna and Satluj. Around 2200 B.C., Sarasvati River started drying up. During the global drought 2200-1900 B.C. it seems that the river completely dried up. This led to the formation of the Thar Desert. These events place the *Mahabharata* much before 2,000 B.C.; in fact even before river Satluj changed its course and before the disappearance of Drishadvati River.

Marine Archeological Explorations Around Dwarka

In the last 50 years, the on-shore and offshore explorations carried out in and around Dwarka have revealed that Dwarka was a prosperous city in ancient times, which was destroyed and reconstructed several times. In the

last two decades of the 20th century, many excavators such as Z.D. Ansari and M.S. Mate have conducted exploration around Dwarka.[36] Dr. S.R. Rao of Marine Archeology and his team conducted several expeditions during 1983 to 1992. The team found several pieces of building material and other artifacts. By using modern scientific techniques of dating the old relics, Dr. Rao dated these artifacts belonging to the period 15th to 18th century B.C.

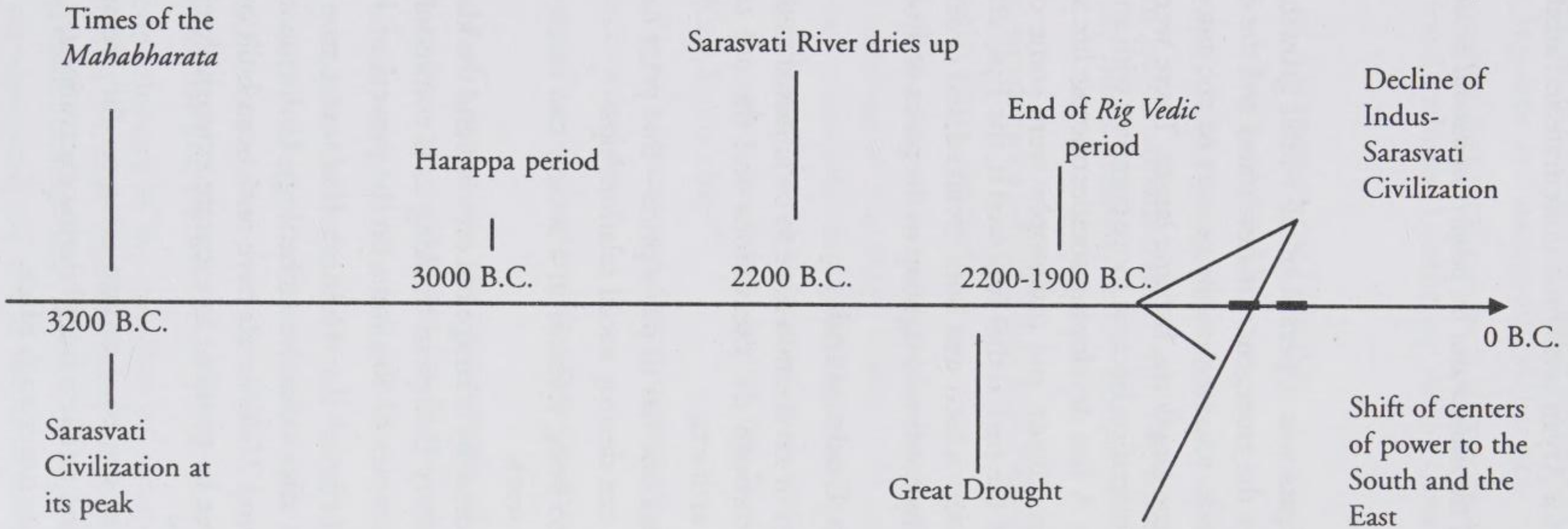
In 2002, an international team under the English archeologist Graham Hancock found the wooden remains of buildings. These were dated around 7,000 years B.C. It is also known that the sea level was at least two feet higher at that time. On the basis of all this information, one can conclude that Dwarka was built or extended several times. The year 3,067 B.C. is within this time frame. It also seems possible that what Rao found belonged to the times just before the final submerging of the area under the rising sea level and what Hancock found was the first layer of the city that was built around 7,000 B.C.

The conclusions arrived at after carrying out underwater archeological explorations, study of the geological and ecological changes support and validate the dates arrived at through astronomical calculations. These also prove that the reconstructed city of Dwarka was a prosperous port town, and that it was still in existence for about 60-70 years in the 15th century B.C. before being completely submerged under the sea in the year 1,443 B.C.

Attempts have also been made to determine the year of the *Mahabharata* from the details available in scriptures which include the *Puranas*. When the events are unrecorded for quite some time and are passed on to the succeeding generations through *Shruti* (oral rendition), the inaccuracies and myths get mixed with reality on account of differences in the perceptions of different individuals. However, it is for the objective students to use cross referencing and rationality and then be able to differentiate facts from the legends. Important information, including the genealogy charts of the rulers after Yudhishthra, is available in *Srimad Bhagvatama*, *Matsya Purana* and *Vayu Purana*. "There is considerable evidence that the genealogies represent a very ancient tradition."[38]

Famous historian Lord Cunningham assigned the year 1,424 B.C. to the War of *Mahabharata*.[39] However, after corroborating internal evidence from the *Mahabharata* with the evidence provided by researchers in the field of ecology, geology, marine archeology, and astronomy, several scientists disagree with this date. The general consensus among the scientists is that the *Mahabharata* war happened around 3067 B.C.

The Timeline of Events
From the *Mahabharata* to the Great Drought


Times of the *Mahabharata*
Harappa period
Sarasvati River dries up
End of *Rig Vedic* period
Decline of Indus-Sarasvati Civilization
3200 B.C.
3000 B.C.
2200 B.C.
2200-1900 B.C.
0 B.C.
Sarasvati Civilization at its peak
Great Drought
Shift of centers of power to the South and the East
1200 B.C. - 300 B.C. The Age of Sutras, *Sulab Sutras*

Cunningham's opinion on this date is extremely important. It proves that the 1500 B.C. date for Aryan invasion is inaccurate and arbitrary as is the theory itself!

Based on all the evidence and the pointers in natural history the above timeline[40] *emerged:*

Summary

The Age of Epics was a period of all round growth and development. This period saw the emergence of new states and the development of the concept of checks imposed on the powers of the autocrats and the kings. At the same time kingdoms became larger. There were many democratic features. Administration became more complex with an elaborate hierarchy of bureaucrats. A fast developing socioeconomic life and an equally rapid development in religion and philosophy were some of the highlights of this period. For the period that followed it, the Epic era left a legacy of an established society which was both civilized and orderly. This stability in society and polity continued right up to the times of Buddha and Mahavira.

Concepts to Understand

1. Key aspects of civilization have to be adjusted as the new information comes in through the excavations and the use of new methods of dating the artifacts.
2. For progress one has to pay a price—that price can bring complexity in life and can destroy social relationships.
3. Attempts to bring reforms in a society can cause social tensions and may cause wars.
4. Limited monarchy is an age old concept and the idea is not the product of 16th century European thinking as is commonly believed. We may use the examples of the limits on the powers of King Rama.
5. "Nobody believed that Homer's *Iliad* was a true story till Troy was discovered after extensive archeology. Unfortunately, the sites of the *Ramayana* and *Mahabharata* have now been built over many times and it may never be possible to excavate extensively either at Ayodhya or Mathura."[41]
6. Just because someone cannot interpret the literary evidence or date the relics and artifacts found during excavations, it does not mean that those events never took place.

7. 'At the most fundamental level, the crucial role of ecology in the rise and fall of civilizations is now getting better understood'[42] displacing blind faith in the linguistic and sociopolitical theories.
8. In the understanding of historical events, it is important to examine the folklore and local traditions celebrating these events.

Questions

1. Describe the life of a student in the Epic Age.
2. Why is this period called the Epic Age?
3. How were the powers of the monarch limited?
4. Compare modern public administration with the administration of the kings of those times. Emphasize the points of similarity and dissimilarity.
5. Use the following words from Sanskrit language appropriately:

   Loka, *Samiti*, *Rajdoot/Doota*, *Parishad*
6. "Lack of archeological evidence is no excuse for denying the existence of history. If the buildings of that time — over 7,000 years ago — do not exist today, can we just infer that civilizations and personalities of that time also did not exist?" In the absence of sufficient archeological evidence, what is the other evidence proving the historicity of the main events of King Rama's life?[43]
7. What are the problems encountered during interpreting information related to the astronomical data?
8. How has computer software solved problems related to the complexity of calculations?
9. Why were the mathematicians and the astronomers of 50 years ago unable to date these events mentioned in the *Mahabharata*?
10. List and explain the key points in the *Bhagvad Gita*.
11. Did women enjoy equal social status? How would you compare their life with that of women in another country (in similar time periods) that you have studied this year?
12. What is the name of the first recorded epic in the world?[44]
13. There are no inconsistencies in the sequence of events given in the *Mahabharata*. Narhari Achar says, "*Mahabharata* is astonishingly accurate, making it the most authentic historical document in human civilizational history." Based on your study of the chapter, explain the basis of Achar's conclusion.

14. What is archeoastronomy? How is it used for dating important events?
15. Could an ancient race have constructed a bridge between India and Sri Lanka? If this feature were found on another part of the planet would it warrant further investigation? This bridge is considered to be a man made structure. How would this fact completely alter the history of human life on earth?
16. NASA estimated that Rama's bridge is 170 million years old. Based on the internal evidence of *Ramayana* and the astronomical references, King Rama goes back 7,000 years. There is a discrepancy of millions of years. Students may analyze the situation and answer the following question: Suppose you build your house with stones, which are millions of years old; does your house also become millions of years old?
17. At the time when Hanuman crossed the sea followed by the entire army, the sea level was almost 10 feet below the sea level we see today. At that time the sea was away from the coast by about 1.5 kilometers. In 7,000 years, it has encroached upon the land by about two kilometers. At this rate of encroachment, which cities of the United States of America are in danger of being submerged?
18. What is the role of local traditions and archeology in constructing history?
19. How is astronomical data provided in the epics useful in building the sequence of events narrated in the *Ramayana*?
20. Valmiki described sky epigraphy in his book. Did Valmiki himself provide the clues to the authenticity of the *Ramayana* and its characters?
21. Rama's bridge is partly a geological phenomenon and partly man-made. Students may like to follow a recent report published[45] by a French Geologist, Nick Marinner.[46] The report shows that there was a sandy land bridge just below the surface of the water between the island of Tyre and the coast of Lebanon. This was submerged under shallow water. On top of this bridge, Alexander could build an almost one kilometer-long road way made of timber and stones. Tyre used to be about six kilometers in length about 8,000 years back. In the next 2,000 years, it shrank to four kms. Students may answer the following questions:
    - Do similar bridges exist anywhere else?
    - Why did Tyre shrink in size and why is the bridge under water now?

22. Study the following questions and discuss if Rama's Bridge (Adam's Bridge) should be demolished to make a navigable canal in the Palk Strait. Consider the following points in order to answer the questions:
    - First point to consider is whether the said bridge is man-made or a geological phenomenon.
    - If it were a geological phenomenon it would assume a great importance for geologists and scientists, making it very important for India to preserve it. It would probably become the oldest Indian natural rock formation in the shape of the bridge and the biggest natural rock formation of the world and the only one under the sea.
    - If it were man-made but not built by Rama, still it is of extreme importance as an archeological site. Probably it would classify as one of the man-made wonders of the world and the oldest ever man-made bridge to exist.
    - Since archeologists link it with Rama, the bridge acquires even greater significance. It acquires religious connotation. It is probably the biggest find of religious, historical and archeological importance.

Enrichment Activity

Linking Past to the Present

1. It is said about Draupadi that "She was a wife and a queen and not the possession of her husband. Only possessions can be wagered. Kingdoms belong to the subjects and the ruler is only a representative of his subjects, he could not place his kingdom as a wager. Those who allowed this heinous act violated all principle of morality, *Dharma* and diplomatic protocol."

   Read the above paragraph and explain which of these concepts form an important part of modern day legal system and political theory?
2. Study the paragraph about Morals and *Mahabharata*, and discuss whether the recent laws relating to antiterrorism made by various governments are just or unfair.
3. 'POTA—Prevention of Terrorism Act is still in a stalemate.'
    - How does this compromise security and integrity of India?
    - How does it affect the safety of its citizens?

4. Students may evaluate the role of various modern governments in containing and controlling antisocial elements and global onslaught of terrorism.
5. What is the role of a government to safeguard students and people at workplace? Students may take the example of recent massacres in schools and universities in the USA, train blast in Mumbai, India and attacks on the technicians in Bangalore, India. After a class debate, students may write a one page report.
6. To what extent the control of buying and selling of deadly weapons compromise freedom of enterprise—an important pillar of democracy.
7. Investigative reporting on the basis of the new evidence coming as primary source. Examine the following headings and the quote and discuss the problems faced by the historians. Who were the indigenous Indians according to the following paragraph?

Some more important information comes to light about the origin and continuity of Indian Civilization.

"All the evidence referred to earlier, point to the probability that nobody had come to India from Central Asia or from any other place. In fact, scores of kings and warriors from all over the subcontinent had come to Kurukshetra in their war chariots from all over India to participate in the *Mahabharata* War and that a whole lot of people got killed in that war. The killers as well as the killed, the victors as well as the vanquished, the charioteers as well as the foot soldiers, all were Indians who had already experienced thousands of years of prosperous and advanced civilization. Archeology also records a continuous indigenous evolution of Vedic civilization from remote antiquity to 5000 B.C. as evidenced at sites like Mehrgarh and Koldi. It continued to the *Mahabharata* war. It is sad that so far we have not known even a fraction about India's ancient civilization and cultural achievements. Detailed factual data in our ancient texts and Sanskrit manuscripts is beckoning us to carry out further research. By making use of modern scientific instruments and techniques we must discover the true facts about India's ancient past. If we do, we may be able to gather supportive evidences to reassert that Indian Civilization was the oldest civilization in the world and that ancestors of Indians, the Vedic Aryans, had traveled from India to various parts of Asia and Europe to spread their knowledge, civilization and culture. When this is recorded we would be able to hold our heads higher and be able to take on the future with greater confidence."[47]

Learning to examine and sift evidence from primary sources which continue to expand.

8. Students may read the following information from various primary sources. After cross referencing information from these sources, students may write a report on how to arrange a historical account of an event. Using the heading, 'Primary sources continue to expand', students may be asked to construct some possible timelines of events.

Given below is the research and conclusions of various scholars posted on the Indian Civilization internet group. Using these quotes, students may discuss how the chronology of Indian civilization and our understanding of the significant events of Ancient Indian History have changed.

- According to Dr. R.N. Iyengar, "Modern scientific tools and techniques like computers with planetarium software, advancements in archeological and marine archeological techniques, earth-sensing satellite photography and thermoluminescence dating methods, all have made it possible to establish the authenticity and dating of many events narrated in ancient texts like the *Mahabharata*. Recent archeo-astronomical studies, results of marine-archeological explorations and overwhelming archeological evidence have established the historicity and dating of many events narrated in the *Mahabharata*."
- NASA takes pictures of the dried bed of Sarasvati River.
- Marine Archeological explorations around Dwarka: "The on-shore and offshore explorations carried out in and around Dwarka during the last 50 years have revealed that Dwarka was a prosperous city in ancient times, which was destroyed and reconstructed several times."
- Examination and dating of recovered articles/antiquities is being done by Physical Research Laboratory.
- Scientists use new scientific techniques such as thermoluminescence, carbon-dating to determine the age of the relics.
- Underwater archeologists found some more relics in April, 07, telling us that historicity of literary accounts in the epics are being authenticated bit by bit through continuing excavations and new finds. Here are the excerpts from the latest report from the team of UWA: "Archeologists are excited about a circular wooden structure found underwater at a near-shore excavation site off the coast

of Jamnagar. Thought to be the remains of the lost city of ancient Dwarka, the wooden structure is well preserved and surrounded by another structure made of stone blocks. Tripathi, head of the team said, 'Though excavation at Dwarka has been carried out a number of times, this is for the first time a wooden block has been found, and this is going to help us almost pinpoint a time frame and give some credible answers.' On April 07, the team found this piece during a near-shore excavation carried out in the southwest region of Samudranarayan Temple. The structure is made of stone and wood. The underwater archeologist carried out diving in shallow water and studied the technique of joining these blocks in detail. "The blocks were joined so well with the help of wooden dowels and nails that they remained in position despite heavy surfs and strong current for a long period. The collected samples will be examined for dating by different laboratories in India."[48]

Critical Thinking Activity

1. Archeology and history – Historicity being proved bit by bit through continuing excavations

"After digging in the dirt for four years, archeologists in Bihar's Samastipur district have finally hit luck. They have found a 3,500-year-old site in Pandavsthan village and some 2,000 artifacts that are said to date to around 1,500-2,000 B.C. Charcoal samples from the site are being sent to the Birbal Sahani Institute of Paleobotany at Lucknow, India. Pandavsthan residents always believed their village got its name from the *Mahabharata* and that the Pandavas spent some time here. The artifacts found here suggest that the site is at least 3,500 years old, making it the oldest site in the Mithila region."

According to Dr Vijay Choudhary, K P Jaiswal Institute, 'Earlier we had excavations at Balrajgarh in Madhubani and Katragarh near Muzaffarpur. But their antiquities could go up to 2nd and 3rd Century B.C. but here is a site that throws up the potentiality of antiquity going back to 1,500 B.C. to 2,000 B.C.' The city was spread over 200 acres. Its brick structures were developed during the Kushana period in the 1st Century A.D. And even now, almost every home in this village owns Kushana coins. At least one villager, a CRPF[49] employee thought it fit to hand the coins back. 'After I retired and returned home I saw that excavations were on. I saw them take out the same coins I already had. I took it to sir and gave it to him since it's a national heritage,' said Ram Swarth Singh, an ex-CRPF employee.

That northern Bihar had a medieval past is well known. These excavations now prove that the ground beneath the feet of Pandavsthan villagers is far, far older than the Kushana period."

How did this discovery help us understand the epic *Mahabharata*? What did the villagers think of their village after this discovery?

Map Study

Study the map given in the chapter and the one in the beginning of the book. Show at least five archeological finds in the subcontinent in the last six decades.

List five capitals or kingdoms mentioned in the *Mahabharata*.

Source Material

- P.C. Ray and K.M. Ganguli, *Story of Mahabharata by Veda Vyasa*, 10 vols. English translation of Veda Vyasa's *Mahabharata*
- Sir Edwin Arnold, *The Song Celestial*
- Peter Brooks' four hour movie; *Mahabharata*
- ISKCON's movie on The *Ramayana* and another on The *Mahabharata*
- Nandita Krishna's article on the historicity of *Mahabharata*, link given in the bibliography
- *Sarasvati River and the Vedic Civilization* by N.S. Rajaram
- For other links and related articles: see bibliography given at the end of the book.

Endnotes

[1] The chronology of all the major events is being verified with the help of the C-14 method and by cross checking the astronomical positions given in the literary documents. Fortunately, with the help of computers, one can recreate the sky and the positions of the constellations described in the documents and verify these. This material, when properly verified, will be an authentic primary source of history of the post-Vedic period especially from the chronological stand point. At the moment, the time difference between the two events is an approximation; ranging between two to four thousand years.

[2] Explained in the previous chapters

[3] Source: 'Archaeo Astronomy of *Mahabharata*', Nanditha Krishna
Link: http://www.newindpress.com/sunday colItems. asp? ID = SEC 200 30705031327

[4] Today this river is known as 'Tons' in the maps of Survey of India, joining with Giri in Himachal Pradesh northwest of Paonta Saheb (close to the Yamuna tear).

[5] Since 1947, Lahore, Kasur and Takshashila are in Pakistan.

[6] The quote from Valmiki's *Ramayana* reads, "*Jananee janmabhoomischa swargaadapi gareeyasi*".

[7] Physical remains of the period earlier than this have not been discovered and most likely were destroyed by the ravages of time.

[8] *Dating the Era of Lord Rama*, Pushkar Bhatnagar.

[9] Ibid.

[10] Sandhya Jain, 'Footprints of Shri Rama', *Pioneer,* May 2008

[11] Ibid.

[12] *Janaki-harana* means kidnapping of Sita. Sita is also known as Janaki.

[13] This corresponds to the actual text of the episode given in Valmiki's *Ramayana*

[14] Quote from Sandhya Jain, 'Footprints of Shri Rama'

[15] V. K. Krishna Iyer, a former Supreme Court Judge

[16] Reported by Dr. Badrinarayanan the retired director of Geological Survey of India

[17] Sage Ved Vyasa was their father.

[18] *Rajsuya Yajna* was performed by a king either at the time of his coronation or after declaring his supremacy over other neighboring kingdoms.

[19] *Bhagvad Gita* has been translated in 311 languages. There are English translations by several authors. Students are advised to read –*The Song Celestial* by Sir Edwin Arnold.

[20] Check the map of Ancient India given at the beginning of the book.

[21] This map is provided by Dr. Ananda Sharan. For more information, refer to the url, http://www.engr.mun.ca/~asharan/indciv/ancmap.jpg

[22] King Bharata was an ancestor of Kurus. He consolidated many regions of the northern plains from River Ravi to Bihar. Besides his administrative abilities and valor, he is famous in history because he emphasized the importance of ability over the birth and heredity for a person to be the king. Instead of passing on the kingdom to one of his eight sons, he made a wise sage the king of Hastinapur.

[23] The word *Devas* here refers to the kings who abided by *Dharma* and had a moral presence in the society and the word *Asura* here refers to non-observers of *Dharma.*

[24] This chapter is called *Shanti Parva.*

[25] Dr K. P. Jayaswal, *Hindu Polity*, K.P. Jayaswal Research Institute

[26] Panini's grammar, *sutra* 6.2.38 quoted by Subhash Kak in 'The *Mahabharata* and the Sindhu-Sarasvati Tradition'

[27] 'Saroj Bala, 'Year of *Mahabharata*', *The Pioneer.* Refer to bibliography for the link.

[28] It is said that the *Bhagvad Gita* has been translated almost in every major language of the world. A student can pick up a short version in English from any store or a library.

[29] Krishna used the word *atman.* The word 'soul' does not really reflect the exact meaning of the word *atman.* The closest meaning is consciousness or awareness.

[30] Shri is used in Indian languages for the word, revered, or Mr.

[31] *A Search for the Historic Krishna* by N.S. Rajaram

[32] Hindu calculation of time is measured by *Yugas*. *Kali Yuga* is considered the age of ignorance and illusion when the rules of *Dharma* are not followed.

[33] The computer software used is known as planetarium program.

[34] Astronomers use the names of the constellation for each event/date.

[35] Source: Comprehensive research by Dr. Narahari Achar and Prof. Srinivasa Raghavan Refer to; *Sarasvati River and the Vedic Civilization* by N.S. Rajaram, pp. 139-40

[36] For full story of the archeological finds around Dwarka and the techniques used to determine the age of these relics, read section 2, chapter 7

[37] Dr. S.R.Rao is the Founder of Society of Marine Archeology.

[38] Quote from, *The Wishing Tree* by Subhash Kak

[39] The war happened!

[40] This is a tentative timeline based on the data currently available. If some new information comes, the dates may change! Many historians place The Sutra period at a much later date. They assign 1200 B.C. as the date for *Sulab Sutras*.

[41] Nandita Krishnan's article, refer to the link in bibliography.

[42] *Sarasvati River and the Vedic Civilization* by N.S. Rajaram

[43] Source: Pushkar Bhatnagar

[44] See link for the antiquity of *Ramayana* in the bibliography.

[45] Report published in 'Proceedings of the National Academy of Sciences USA'

[46] Link for the full report: http://www.spiegel.de/international/world/0,1518,483050,00.html

[47] http://www.hindunet.org/saraswati/colloquium/*Mahabharata*01.htm

[48] Source: Express News Service, May 5, 2007

[49] CRPF stands for Central Reserve Police Force.

Chapter 15

The Rise of Buddhism and Jainism

This chapter will discuss the two new faith traditions which emerged from the *Vedic Dharma*. The sixth century[1] is a great landmark in the history of mankind because of the birth of two great sages, thinkers and reformers of the world—Gautama Buddha and Lord Mahavira, the founders of the fourth and fifth largest religions of the world.

Gautama—Siddhartha and his Religion

Gautama also known as the Buddha (Sanskrit word for the enlightened one) was the son of Sakyan, King of Kapilvastu, near Gaya. He was the 24th king of the solar dynasty, first ruling from Ayodhya and then from Kapilvastu. He was a Hindu prince. It is said that when Gautama was born, the royal astrologer had predicted that the boy Siddhartha (the given name of Gautama) would be the greatest saint of the century. The king did not want this type of life for the prince; therefore, he tried to surround the young prince with all kinds of luxuries and pleasures. Siddhartha got married at a young age and his father kept him surrounded with worldly comforts and enjoyments.

One day, the young prince wandered out of his palace and was deeply distressed by the sufferings and miseries of the people he saw. He tried to find reasons for the unhappiness of mankind. No one could provide him with adequate answers and Siddhartha became obsessed with the causes of endless cycles of birth, growth, decay and death, entailing more and more misery. He realized that he could not find answers without renouncing the world and the royal duties. He left his wife Yashodhra and his son Rahul to start his spiritual journey.

Many recent historians believe that Siddhartha was not raised in seclusion and when he left his home, he was looking for places of higher learning. The names of his gurus also suggest that he did gain spiritual

knowledge under the teachers—one of them being—Udaraka. His quest was about the nature of *Brahman*. The answers did not satisfy him. Then he sat under the Bodhi tree with the firm determination not to move until he attained absolute truth. Many revelations came to him through austere meditation.

He got the vision the very first day but kept sitting for the next seven days, enjoying the blissful state of emancipation from desires. The seeker of Truth[2] then decided to propagate his ideas to the world. He set out with five disciples. From then on, he continued to live the life of a hermit. Gautama and his disciples begged for their food and did not engage in any activity involving earning money or creating desires. Wandering through many cities and kingdoms, one day he stood in front of a door that was opened by his wife with a bowl of food. Even today, it is customary in India to open the door with a bowl of food, expecting a wandering hermit begging for food. Gautama was a *bhikshu* at that time. She gave him food. Their eyes met for a moment and then he was gone.

Buddhist Ideas

In the Deer Park in Sarnath, Gautama delivered his first sermon to his five disciples. In that sermon, he argued about the futility of elaborate religious ceremonies that common people did not understand as also the danger of overindulgence in sensual pleasures. He condemned both extremes of austerities and overindulgence in pleasures. He advocated the middle path, which he called the Path of Eightfold Virtue. These virtues are:

- Right views
- Right speech
- Right action
- Right living
- Right effort
- Right resolve
- Right recollection
- Right meditation

For the next 45 years, he moved around, preaching the middle path as a way of liberation from human misery and sorrow and be able to attain *Nirvana* (Sanskrit word for liberation and synonymous with *Moksha*). Buddha stressed on *Nirvana* as the ultimate goal of life and the eightfold path as the means of achieving it.

The Wheel of *Dharma* symbolizes Divinity and as the wheel turns, through one's Karma, a person finds himself closer to the Divine. The way to do that is to follow the middle path and observe the principles laid down by the Buddhists.

The Impact of Buddhism

Even during his lifetime, *Buddha Dhamma* spread like a forest flame because he simplified *Vedic Dharma*, so that common people could understand and practice it. His qualities of humility and compassion won him a following of thousands of people. The simple ideas of ethics and self restraint of Buddhism were so appealing that over the centuries it spread to several countries outside the land of its birth, such as Ceylon (Sri Lanka), China, Japan, Cambodia, Burma, Thailand, Indonesia, Tibet and several other East Indian Islands. Men and women of all races and countries embraced it. Religious messengers from foreign countries came to acquire Buddhist ideas and attain practical wisdom about life and its goals. The most notable visitors were Fa-hien, fourth century A.D. and Hiuen-tsang, seventh century A.D. These emissaries not only carried with them Buddhist religion but also the ideas of Indian culture and the glory of Indian civilization. Their accounts are considered some of the earliest historical documents quoted in various history books. Even now, based on the number of people following it, it is the fourth largest religion of the world and has been a source of inspiration to intellectuals and practical psychologists. For curing psychiatric problems, psychologists use Buddhist techniques of introspection, self-realization, meditation and Yogic discipline.[3] The Dalai Lama, the exiled leader of Tibet is the religious head of Tibetan Buddhism and has been continuously working for world peace through nonviolence and inner harmony.

For a while, the disciples of Buddha did not worship Him nor did they believe Him to be God. Buddha himself rarely talked about God, let alone proclaiming himself to be a god.

Later, however some of his followers started worshipping him as God and started offering prayers to his statues and pictures. Down the centuries, most aspects of their traditional worship and ceremonies resembled Hindu ways of prayer. This group called itself *Mahayana*. In the Wheel of *Dharma* this is the second turning.

Besides, *Mahayana*, there were two other sects of Buddhism. *Theravada* is the first Turning of the cycle of *Dharma* and it includes the four noble principles and eight-fold path. This path does not include prayer to Buddha.

It stresses on purification, simplicity, morality, renunciation, nonviolence and restraint as the way to liberation. Its popular name is *Hinayana*.

The third turning in the cycle of the Wheel of *Dharma* is known as *Vajrayana*. The followers of this sect practice Tantra. They worship symbols, offer prayers to the Buddha and to their priests. They believe that the blessings from the Lamas and the proper procedures followed by the followers can ward off evils. Buddhists of Tibet, Nepal and Eastern Himalayas follow the *Vajrayana* tradition.[4]

Recent Efforts to Date the Times of Buddha

Continuing the path-breaking use of the planetarium software (of the type used by NASA to launch satellites), Narhari Achar[5] studied the possible time frame of Gautama Buddha. On the basis of the sky maps of the 3,067 and 1,807 B.C. he made a chart of the important dates in Hindu civilization: the Great War and the *Nirvana* of the Buddha, respectively. This date is consistent with the Tibetan Bauddha tradition which notes that Gautama the Buddha lived in nineteenth century B.C.

Buddhism as Compared with Vedic Religion

Buddhism is not different from Hindu religion and Buddha never tried to replace it. His eightfold path of virtues is so similar to Manu's ten principles of righteous action (*Dharma das Lakshnam*)[6] that one can trace his Vedic roots as a Hindu prince. His ideas on balance in life and Karma seem like they come right out of the *Bhagvad Gita*. He advocated pilgrimages to holy places, ceremonies to offer respect to ancestors, the *Yajna* (called *Yonna* in Buddhist texts) ceremonies. He shifted emphasis to nonviolence and righteous living. Buddhism was soon accepted and assimilated in Hindu traditions. It did not remain as a religion any different from Hinduism and eventually it disappeared from the land of its birth. *At no point in time was there any evidence of intolerance, conflict or persecution between Buddhists and the Hindu population, so much so that in the Puranic literature Lord Buddha is considered as one of the incarnations of God.* However, Western scholars emerging from the bloodshed of the Christian crusades, persecution and inquisition find it difficult to believe that the Shiva temple and Buddhist rock temple exist side by side in Gaya. A Hindu King permitted the King of Ceylon to build the temple around the rock from where Buddha preached. This kind of courtesy was also extended by a Chola king to an Indonesian king of Sailendra dynasty to make a Buddhist *Vihara* in Nagapattinam.[7]

Some of the enlightened sayings about Nature (*Prakriti*) and the Creator almost seem like coming from the *Gita*, for example:

Buddhists are reminded of the Five *Niyamas* in action. Five *Niyamas* are five aspects of the cosmic order:[8]

1. *Utu Niyama* (material nature) – law of physical matter (that of physics and chemistry)
2. *Bija Niyama* – law of living matter (that of life science)
3. *Kamma Niyama* (*Kama*) – law of karma, activity and transformation
4. *Dhamma* (*Dharma*) *Niyama* – law of natural phenomenon at a spiritual level (such as occurrences during Buddha's birth, gaining of enlightenment and passing away)
5. *Citta Niyama* (*Chitta*) – law governing consciousness (that of psychology)

One may think that the Buddha was powerless over the forces of nature. As a matter of fact, the Buddha fully comprehended how nature works. *The Buddha does not create nature's laws.* They were in existence even before Buddha's time and remain whether or not the Buddha is around. The Buddha discovered the laws. So did hundreds of ancient sages and *Rishis*.

Indian philosophy relies on direct vision of truths and pure reasoning. It is unique because there are nine schools of philosophy divided into *Astika* and *Naastika*. The former includes *Nyaya, Vaisheshika, Sankhya, Yoga, Mimansa* and *Vedanta*. The latter includes *Bouddha, Jaina and Carvaka* (also spelled as Charvakas).

Although each school of philosophy is unique, they are bound by certain common characteristics like open mindedness, direct experience and open debate with the support of logic and reasoning. In approach and practice, Buddhism is an offshoot of Hinduism.

When a follower of one school uses the power of reason to convince another, he has to first listen to another's viewpoint, use his intellect to find fault in that argument and lastly articulate his viewpoint convincingly. To do so, a person needs to have an open mind and be a good listener.

The heart of this process lies in the human traits of humility and intellect and in a society and polity that grants freedom to think.

Buddhism Outside India

Though Buddhism has its roots in India, the religion has all but vanished from the country but is widely followed in the East and South East Asia.[9]

Buddhist Literature, Art and Architecture

Buddhist Literature

The followers of Buddha created a vast literature. Some of the significant parts of that literature are enumerated below:

1. *Das Brahmana Jataka* depicts the socioeconomic life of the people.
2. Eighteen volumes of Buddhist *Jatakas* were written, only four of them are now available.
3. Buddhist literature based on Buddha's preaching and compiled after his death is in two languages – Pali and Brahmi. Two universities—at Takshashila and Nalanda[10] were famous as learning centers for Hindu and Buddhist studies. Till the 13th century, the monastery in eastern Nalanda in Bihar was a world center for Buddhist philosophy and religion.

Buddhist Architecture and other Arts

The simple structure of monasteries and *stupas* were built during the reign of Mauryas and the Gupta rulers. King Asoka and King Harsha Vardhana had made several rock edicts propagating human values. The famous horse shoe caves near the modern city of Aurangabad, known as Ajanta caves abound in paintings, frescoes[11] and rock sculptures depicting Buddhist themes. The Sarnath pillar and *Dharma Chakra* from Asoka's time are famous Buddhist art forms.

Many scholars believe that the moral edicts of Buddha traveled to Middle eastern and East European countries and were absorbed in their morals and social ethics.

In several countries besides India, there are Buddhist temples and monasteries which are used for worship, meditation and for the attainment of wisdom.

One of the greatest monuments of Buddhist art is Sarnath Pillar at Sarnath in Uttar Pradesh, India. The top of the pillar has four lions which emphasize coexistence. Today the top of the pillar is the national emblem of independent India.

Sherpas of Himalayas

A Case Study for Understanding Similarities of Traditions and Beliefs

Common Practices

From Himalayas to the tip of India, there are common threads of religious practices. To the spectator, these are not visible but those who are in the traditions have a perception of certain common features which have not changed with the passage of time.

Mountain peaks are revered as feminine *Devis*—Girija (also Parvati) by Hindus, Sagar Maata by the Nepalese. Miyolangsangma of Sherpas residing at the Mount Everest also known as Chomolungma is worshipped by the Sherpas and the Tibetans. Buddhist practices such as circumambulation of the temple of the *Devas*, the use of butter lamps (shallow earthen pots used for the purpose), lighting the same to get blessings for the success in a venture, the use of contrasting colors symbolizing life, offering to the monks or to the *Devas*—fruit, cloth, money, getting a part of the offering back as *Deva's* blessings, fasting, emphasis on self-control, austerities, mental discipline, charity, feeding the community for gaining blessings, offering prayers with folded hands and bowing are practices very similar to Hindu practices. The Sherpas believe that through intense meditation, the priests acquire the power to create a positive vibration for the people around them especially for those whom they focus on. Buddhists and Hindus chant prayers and mantras. Only the language is different.

Common Beliefs

Sherpas believe in reincarnation. Therefore they strongly believe in austerities and good deeds. Following the right path, they believe that they will either attain *Nirvana* or get a better life after death. Sherpas believe that constellations of the planets and the moon affect the environment and have a profound effect on humans as well. Sherpas have reverence for nature.

They respect elders and follow the advice of the Gurus and other elders. They cremate their dead. They believe that prayers can ward off evils and obstacles. Often they pledge to light lamps around the monastery when they return from a pilgrimage or achieve success in their endeavor. They believe that there are *Devis* who preside over the mountains and protect the people.

Buddhists from Tibet, Nepal and eastern Himalayan regions offer elaborate prayers in front of the statues of Buddha and other Bodhisattvas. Monasteries and temples have gilded figures of Buddha and Bodhisattvas. For Hindus and Buddhists, symbols provide a focus for prayers

The Sherpas enter the main part of the monasteries, prostrate three times before the Buddha and other Bodhisattvas. They then light butter lamps.

Just as Hindus do, Sherpas offer fruit, other types of food, cloth, flowers and money to Buddha. A part of the fruit is returned by the presiding monk/priest as a token of blessings much the same way as is done in the Hindu temples.

Often talisman[12] – a small wrapped up package is given by the priest. The package is to be kept by the devotee all the time to ward off obstacles. This practice is common in most of the religions—many of the Sufis, Christians, and Hindus keep or wear talismans. Another interesting similarity is lighting of the butter lamps in the monastery.

To recapitulate; Buddhism is the fourth largest religion of the world. Though Buddha was born in India and for several centuries had a large following, the religion had all but vanished from the country. Buddhism is widely followed in several countries of East and South East Asia. With the Chinese occupation of Tibet, most Tibetans moved south to India and made Himachal Pradesh in India as their home. Dalai Lama, their spiritual head also moved there. Some of the most beautiful Buddhist temples are found in several parts of Himachal Pradesh.

Many of the teachings of the Buddha are absorbed in Hinduism and most Hindus believe that Buddha was an incarnation of Vishnu, the Supreme Being. When we compare the two religions, we find similarities not only in their beliefs but also in the ceremonies and religious practices.

Lord Mahavira and Jainism

In 599 B.C. Mahavira was born in Vaisali, Bihar, India. Vaisali happens to be very near the place where Gautama was born. According to the Jaina historians, Mahavira (given name Vardhamana—Sanskrit word for bringing prosperity,) was the twenty fourth prophet. After the death of his parents, Vardhamana renounced worldly life and became a wandering monk. After twelve years of austere life and self-control, he arrived at self realization. He started a community of monks, nuns and devotees of both sexes. He attained *nirvana*[13] in the year 527 B.C. at the age of 72.

The present form of Jainism was shaped by him. However, many Jaina scholars believe that Rishabh Dev—the founder of Jainism is mentioned in the Vedas. The word Jaina comes from the word Jina which means a conqueror. A person who can overpower his senses, mind, desires and weaknesses is Jina or Jaina. Jaina *Dharma* is also known as *Arhat Dharma*.

Jaina Teachings

Mahavira preached self control, nonviolence, simple life and detachment. For thirty long years, Mahavira wandered around teaching nonviolence, non-possession and pluralism with diverse thinking, known as *Anekantavada* (a Sanskrit word) in Jainism. He also emphasized the ten principles of morality and ethics—ten virtues. *These are almost the same as in Hindu and Buddhist Dharmas.*[14] However Mahavira gave the highest priority to nonviolence and self control. Stressing the simplicity of Jaina *Dharma*, Vivekananda said, "Do not injure any, do good to all that you can and that is all the morality and ethics and that is all the work there is and the rest is all nonsense." Long before modern science accepted that plants are living organisms with senses, Jainas were aware that plants were living things worthy of respect and non-injury. The knowledge that plants breathe oxygen at night is behind the Indian sentiment against plucking flowers or cutting trees after sunset.

An overview of Jaina teachings and the main principles:

- Nonviolence
- Multiplicity of views
- Non-possessiveness
- Non-stealing
- Celibacy, austerities and fasting

Multiplicity of viewpoints means that people have a right to differ on issues and it is important that they discuss those issues. When people listen to different viewpoints, they arrive at more accurate conclusions. In this way a healthy discussion of all the viewpoints add to knowledge.

Fasting is an important part of the life of practicing Jainas. In the beginning, most of the followers were *Digambars* and they wore little clothing. Many Jainas later started wearing white clothing. This group of Jainas was called *Swetambar*. Jaina philosophy absorbed several of the Vedic beliefs. In the *Mahabharata* four types of debts are mentioned and every person is supposed to discharge these debts in his/her lifetime. These debts are, debt to *Devas* (to be discharged through worship), debt to the

ancestors (to be discharged by continuing the family), debt to the teachers (paid through dissemination of knowledge) and debt to humanity (discharged by service to humanity).

Jainas have a story that Aristanemi, the twenty-second Tirthankar, wished to renounce the world without getting married. Krishna advised him against this by reminding him of his debt to his parents which could only be discharged by getting married and raising a family.

Jainas made important contributions in various fields of science, arts and architecture. Their most significant contribution is their tradition of preserving ecology through day to day actions. Thus, besides being a spiritual tradition, Jainism has been among the first religions which emphasized environmental ethics. Respect for all life, practice of nonviolence and vegetarianism are three such mandates which protect our environment and maintain ecological balance.

In the words of Sandhya Jain, "This compassion towards lesser beings made Jainas pioneers in setting up hospitals for birds and animals." Like Hindus, Jainas also measure time in cycles. They believe that in the first phase of time, there was only bliss and happiness, the second phase was of happiness, the third was of bliss and suffering, the fourth was of suffering and pleasures and the fifth phase had only suffering. Currently, humanity is going through suffering.

Mathematics

In the field of mathematics, Jainas made several contributions by expanding and developing many of the mathematical concepts used by the Vedic people. The Jainas recognized five different kinds of infinity: infinity in one direction; infinity in two directions; infinity in area; infinity everywhere; and infinity perpetually. This is quite a revolutionary concept, as the Jainas were the first to discard the idea that all infinities were same or equal, which was prevalent in Europe till the late nineteen century.

The study of mathematics and astronomy survived in the School of Mathematics at Kusumpur (in Bihar), up to the end of the fifth century A.D. "The famous Jaina saint Bhadrabahu (author of two astronomical works, a commentary on the *Suryaprajnapti* and the *Bhadrabahavi-samhita*) lived at Kusumpur. Two other important and well-known centers of mathematical studies in ancient India were Ujjain and Mysore. The Ujjain school included the greatest of Indian astronomers Brahmagupta and the mathematician Bhaskaracarya, while the southern school of Mysore had its representative in Mahaviracarya."[15]

"*Suryaprajnapti* (400 B.C.) and other early *Jaina Sutras* give the length of the diameter and circumference of certain circular bodies. The Jaina commentator Silanka has quoted three rules regarding permutations and combinations, two of them are in Sanskrit verse and the other is most interestingly in *Ardhamagadhi* verse."[16]

Many of the mathematical concepts such as permutations and combinations, law of indices, theory of numbers and geometry, astronomy were there in the *Sulab Sutra* and other Vedic texts. These were used in real life to build fire altars of various shapes. The Jaina mathematicians continued further research and enunciated elaborations on these concepts.

Jaina Symbol

Jaina Temples are Marvels of Architecture

Jaina *Dharma* prospered in Magadha. With the passage of time, there was dispersal of Jaina community in different parts of the subcontinent.

Many centuries later, there was a famine in Magadha and it led to mass migration of the population to South India (mostly to the present day Karnataka) and after some time, another migration took place to Gujarat (Girnar).

The first group was called *Swetambar* because they started wearing white clothes, whereas the other were *Digambars*.

The second group was strict and not willing to change.

A third influential group developed after migration from Bihar to areas near Mathura, which constantly tried to patch up differences between these two groups. Udaigiri (Odisha) was also, one of the important Jaina centers.[17]

In the olden days, this religion spread to Sri Lanka and is still the major religion of that country. All of this happened approximately 2,000 years ago. Assimilation, acceptance and coexistence of the three faith traditions with common philosophical threads create diversity in faith traditions. Tolerance of each faith tradition leads to a richer tapestry of Indian culture.

Hindu *Dharma*	**Buddhist *Dhamma***	**Jaina *Dharma***
Truthfulness	Truthfulness	Truthfulness
Self control and austerities	Self control and austerities	Self control and austerities
Forgiveness	Forgiveness	Forgiveness
Control of mind	Control of mind	Control of mind
Charity	Charity	Charity
Nonviolence and respect for all life. Violence is justified for self defense and protection of the country	Nonviolence under all circumstances	Nonviolence under all circumstances
Attainment of wisdom, liberation from suffering and end goal *Moksha*	Path of spirituality leads to *Nirvana*	Liberation from sufferings
Acquisition of knowledge helping a person to lead a balanced life and achieve liberation while alive	Right path, the middle path helps one lead a balanced life	Austere life and respect for all life leads to happiness
Compassion towards all	Compassion towards all	Compassion towards all
Purity of action	Purity of action	Purity of action
Respect for duty	Respect for duty	Respect for duty

As seen above, there is no difference between the goals of human life as seen in each of the above faiths. Cardinal principles of faith, knowledge and right conduct are the essence of each faith. These three religions agree that one can get peace and bliss through self-realization.

The Self is seen in relation to the entire Cosmos and all three faith traditions emphasize the role of self-realization. The Hindus, the Buddhists and the Jainas believe that human birth is a blessed opportunity to evolve into a better being. Human birth is not a consequence of sin nor do humans wait for any atonement. All three faith traditions also find Yoga as the way to awaken the inner self and strengthen one's powers. The one difference is the names of the priests and the languages of some of the holy texts.

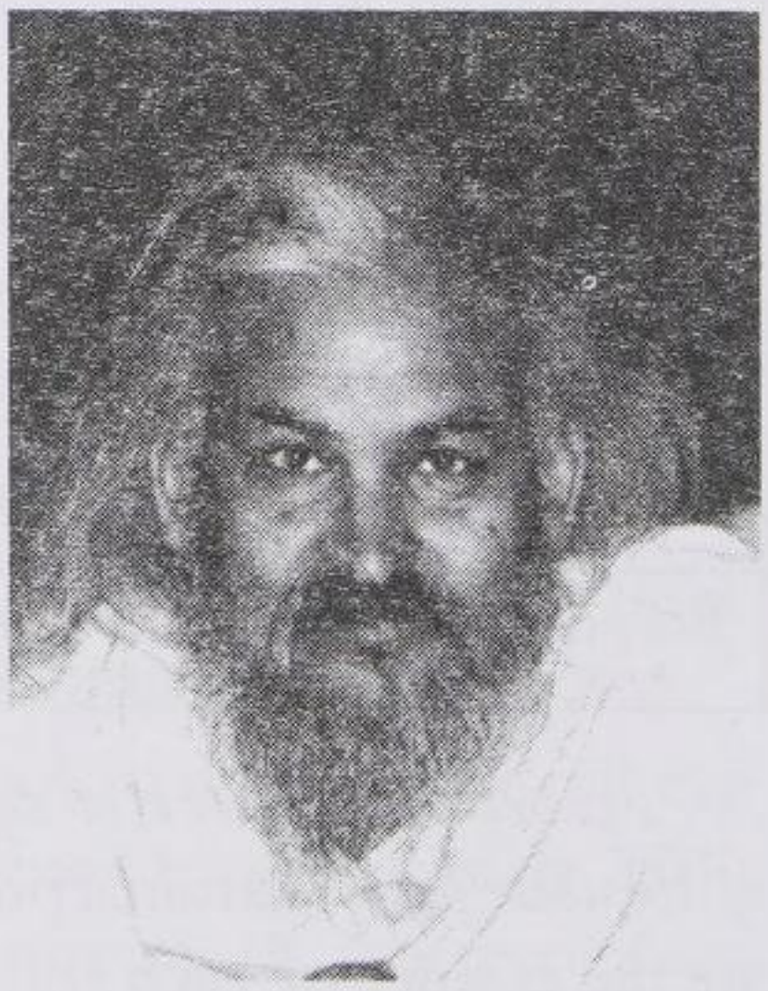
Further similarities can be seen in the following chart:

Hindu faith	**Buddhist faith/Jaina faith**
Belief in Karma and reincarnation	same
Paying respect to ancestors	same
Cremation of the dead	same
View of the world as a family	same
Ten principles of morality and ethics	same
Tolerance and respect for all other ways of seeing God	same
Worship of symbols and deities	same

Besides the above similarities, there were common beliefs and practices. The disciples of both faith traditions believe in reincarnation. The *Encyclopedia of Buddhism* notes that there were 16 Buddhas before Gautama. Jina tradition refers to 24 *Tirthankaras*.

Jainism Today

Jainism is practiced by a large population in India and abroad. Unlike Buddhism and Hindu religion, it did not spread to other countries right away. It is the fifth largest religion of the world. *Swetambar* Jainas have established *ashrams* and temples in various countries. The first Jaina leader to come to America was Muni Sushil Kumar. Muni Sushil Kumar established an *ashram* in New Jersey and he tried to promote interfaith dialogues amongst different religions in the USA.



Muni Sushil Kumar
Photo courtesy: Usha Jain

Summary

The comparative chart of these three paths of *Dharma* shows that Buddhist, Jaina and Hindu *Dharma* are not only similar in their beliefs and ceremonial aspects but these also have the same core essence. Thus, we can see that the *fundamentals* of these three religions are the same. Since they stress pluralism, acceptance and nonviolence, all three are vibrant today and are relevant to modern day social life. Extended to political and international realities, these three religions provide guidelines for a true global brotherhood.

New Words to Learn

- *Astika* – believer in the existence of God
- *Bhikkus* – disciples of Buddha who begged for sustenance and at the same time followed and propagated Buddhist tenets
- Buddha – the enlightened one
- Emancipate – to liberate
- *Mimansa* – analysis
- *Naastika* – one who does not believe in existence of God
- *Nyaya* – justice and balance
- Renounce – to give up material possessions to lead an austere life
- *Vaisheshika* – analysis of the specifics at the subatomic level
- *Sankhya* – analysis of cognition
- *Vedanta* – the essence of Vedic philosophy
- Yoga – unison of mind and body

Concepts to Understand

1. When people enjoy freedom to think they enjoy the opportunity to start new religious traditions.
2. In the same free atmosphere, the process of assimilation began; wherein most of the kings patronized all three religions.
3. Selection and assimilation is a process of synthesis.
4. Assimilation and synthesis of different religious traditions is a source of vitality and dynamism for the society and its traditions. This is only possible when societies are allowed the freedom to think, elaborate and comment.
5. Religious tolerance is necessary for the peaceful coexistence of pluralistic societies.

6. Religion has to rejuvenate itself with the preaching and ideas of sages to fit the needs of the people. The societies of different regions of the world have specific historical traditions and emotional experiences. All three religions believe that there cannot be only one way of defining the Creator or of offering prayers.
7. Emphasis on particular aspects of *Dharma* changes according to the needs of the times. In the sixth century B.C. Buddha and Mahavira emphasized practicing nonviolence at the individual, social and the state level.
8. Encouraged by the tolerance of the kings, artists created monuments for all three different religions.
9. Travelers from China took Buddhism to countries of the Far East and Japan.
10. India offered the best scenario of pluralism and religious freedom.

Questions

1. How did Gautama Buddha try to reform society?
2. What is Buddhism's appeal to medical practitioners? How is it relevant to the life of modern people?
3. Name some countries which are Buddhist today. Find an acquaintance or another student from a Buddhist country. What are his/her beliefs? Are these any different from the ideas of Buddha?
4. How did Buddha find the path to *Nirvana*?
5. Why is Gautama known as Buddha?
6. What is the ultimate goal for a Buddhist?
7. Analyze some of the reasons for the disappearance of Buddhism from the land of its birth.
8. Collect some pictures of Buddhist art or architecture and show how these are different from the art of any other religion. (You may choose any one of the religions of the world.)
9. Draw a parallel between Hindu and Buddhist traditions. Procure some pictures showing similarities.
10. Visit to a local temple may be arranged to check how symbolism is used in the temples.
11. Do Hinduism, Jainism and Buddhism differ from your religion when it comes to understanding ways to lead a good life?

12. If you were to make a list of the principles for the progress and happiness of mankind, what other points would you add? Would you delete any point from the above lists?
13. How are these Asian religions relevant to modern life?
14. Pictures of a Jaina temple and a monastery have been placed at the end of this section. Study the art style and compare it with the pictures of Buddhist art and Hindu art and architecture.
15. For independent study, students may take a field trip to the Jaina temple and *Ashrams* (Sanskrit word for residential institute of religious studies) in New Jersey. They can interview the resident devotees and *Acharya* (Sanskrit word for teacher and moral preceptors) and prepare a summary of Jaina religious teachings and view of life.
16. "The shared spirituality of the Indic tradition is like an unstitched garment – whole, inclusive, interlinked, and unthreatened by the inevitable loss of culture, tradition and diversity that accompanies monotheistic traditions." Taking some examples from Vedic, Buddhist and Jaina beliefs, discuss this statement made by Sandhya Jain.

Enrichment Activity

1. Study the beliefs and practices of Japanese Buddhists and explain how these differ from the teachings of Buddha.
2. Study the directive of Jaina *Dharma* and *Bhagvad Gita* given below and evaluate how akin Jaina *Dharma* is to the Vedic thought.

"Attaining full control over the desire for food, the desire for sitting in different postures for comfort, and the desire for sleep as per the teachings of the Jina; one should contemplate upon one's own *Atman*. This is the teaching of the Guru."[18]

There are several verses in *Bhagvad Gita* which express similar aspiration. Here is one such quote from *Srimad Bhagvad Gita*, ch. 6, verses 13-16:

"During meditation as far as possible, one should have straight posture of the head, neck and body and then concentrate on the tip of the nose. Thus with mind subdued, unagitated and fearless, one should meditate. Practicing like this and always regulating his mind, body and soul, a yogi attains peace and freedom from material existence and reaches God in the spiritual sky. One cannot be a yogi if he eats either too much or too little, sleeps too much or not at all."

- Recommended website: http://hinduism.about.com/od/jainism/Jainism.htm

Critical Thinking Activity

1. Critically examine the factors responsible for religious pluralism in India in the first millennia A.D. What were the conditions in Europe at that time? Students may select one or two countries to use as examples.
2. When Chinese tourists came to India, they took with them Buddhist ideas and manuscripts. How did these visits change the religious and social life of the Chinese? It may be remembered that prior to these visits, the Chinese followed the ethics of Confucius and Tao.

Endnotes

[1] This date is currently under reexamination with the help of modern technology of determining dates of the artifacts and relics.

[2] Buddha is also called Tathagata – knower of truth.

[3] The ideas of Yoga and meditation have been an integral part of Hindu *Dharma*. These ideas are parts of *Yoga Vashishtha*, *Bhagvad Gita* and Patanjali's *Yoga Sastra*. Yoga is a Sanskrit word and was later used both in Pali and Hindi languages.

[4] Students may go over the section about the faith tradition of Buddhist Sherpas. They follow *Vajrayana*.

[5] Source: Narhari Achar's published papers
Link: http://www.hindunet.org/saraswati/colloquium/narahari01.htm

[6] These principles are listed at the end of the chapter on Hinduism

[7] Refer to *History of South India* by Nilkanta Sastri

[8] Source: www.dhammatimes.com

[9] Check section 3, chapter 28 for more details about the spread of Buddhism to neighboring countries

[10] See section 3 to learn more about these two universities.

[11] Frescoes are paintings, carvings and etchings on the face of rocks.

[12] Talisman is a charm, usually a little package kept near the body to ward off evils.

[13] Sanskrit word for attaining *Moksha*, liberation from life

[14] See the chart of similarities among these paths to self realization.

[15] D.P. Agrawal, *Ancient Jaina Mathematics: An Introduction*
Link-http://www.infinityfoundation.com/mandala/t_est_es_agraw_jaina.htm

[16] Ibid.

[17] Refer to section 4, chapter 34 for Jaina temples in the Southern parts of India

[18] K. Elst answers this, "This purely Upanisadic message proves once more that Jainism is unthinkable without Vedism, of which it is indeed an offshoot."

Chapter 16

Zoroastrianism

This chapter will discuss some of the important beliefs and customs of Parsis in India. It will also focus on the achievements of the Parsis in the last 1,500 years.

In the case of Parsis, in 600 A.D. they had signed a document contracting with the Dwarka Shankaracharya to be culturally assimilated, and they have kept to the compact.

Readers may remember from the chapter about the Vedic people that during the battle of ten kings, many people migrated to Iran (also known as *Ariyan*). In subsequent skirmishes in the northwest of India, Druhyus were thrown towards west and they settled in Iran. They were known to the Vedic people as Parsas, Panis, Parthians and Visyas. The contacts between the Persians and the Indian border kingdoms continued. Five hundred years prior to Alexander's invasion, there were trade relations and visits by these emigrants from India. Parsis' sixteen holy pilgrimages being in the east of Iran, there was reason for their visits and interaction. The Vedic communities allowed the *Adharmic* people to leave the border kingdoms if they chose to do so.

Earlier emigrants took the cultural traditions and Vedic ceremonies with them. Later visitors to India kept the traditions alive in their new homeland. Thus, for several centuries, these communities from both sides of the border continued to live amicably.

Zoroastrians are also known as Parsis because most of the Zoroastrians were concentrated in the Iranian province of Pars.

Zoroaster and *Zend-Avesta*

Around 1000 B.C. Prophet Zarathustra (known to the West as Zoroaster) was born in ancient Iran. He is considered to be the founder of Zoroastrianism— the present day religion of the Parsis.

The earliest written scripture of the Parsis is known as *Zend-Avesta*. It contains the teachings, sermons and prayers composed by Zoroaster himself. Some parts were also written by his followers and the disciples. Avesta is also the name of the language in which the scripture is written. This language resembles the language of the Vedic texts.

The contents of the text in the Avesta is arranged in five parts.[1] The *Yasna* (*Yajna*) is the book of worship composed by Zoroaster. It is the first part. Some of its parts are in the form of *Gathas* (stories) and some are divine songs. The second part consists of invocations to the Lord of the spiritual world and material creation. This is known as *Visperad*. The third part dealing with ritual purity guides people how to ward off evil spirits. This part is called *Vendidad*. Epic hymns are in the fourth book, known as *Yashts* and *Nyaeshes*. The little *Avesta* is the book of daily prayers and it is the fifth part of the scriptures.

Beliefs of Zoroastrians

The Parsis are fire worshippers. In addition, they worship the forces of nature, such as the earth, flora, fauna and water. Parsis believe in righteous living. There are seven principles of righteous living: charity, truthfulness, celebration of Gahambar, performance of a three day ceremony after a death, worship of God, building of poor houses and to have goodwill for all people.

Zoroastrian Calendar

Parsis use a calendar with a year of 365 days divided in 12 months. Each month is of 30 days. The five extra days at the end of the year are for prayers and are known as *Gatha* days. Before the Arab invasions, Parsis also had a calendar with a leap year which needed to be adjusted after 120 years with an extra one month. This calendar is not followed any more. The Parsi New Year starts on the 21st March, the Vernal equinox.

Customs and Festivals

Jamshed Nav Roz is the celebration of the New Year accompanied with feasting and drinking. As with all other festivals, prior to this festival, there is cleaning of the house. Floral designs decorate the steps and doorways of the house. Flower garlands are also hung on the doorways.[2] Jashna is held, prayers are offered and New Year greetings are exchanged.

The birth and death anniversary of Prophet Zoroaster is also celebrated. On the birth anniversary there are feasts and festivities. On the death anniversary, discourses are held about the life and preaching of Zoroaster.

In the *Muktad* ceremony ten days before the New Year, Parsis invoke the blessings of their righteous ancestors. On these days, *Gathas* of Zoroaster are read. Food, fresh flowers, sweets, milk and fruits are offered before invoking the blessings of the *Fravashis*. Family priests conduct the prayers twice a day during these ten days. After this period the dead return to *Ahur Mazda*—the abode of light.

Parsis also celebrate the arrival of each of the six seasons. Like the Hindus, their year is divided in six seasons—mid spring, mid summer, autumn, cattle breeding season, mid winter and spring. Each season is associated with certain natural and material characteristics. Each of the seasonal celebrations lasts for five days. These festivals are called Gahambars. The feasts, prayers and charity are part of these celebrations.[3]

Every month and on festive days, Jashna is held. Parsis visit Fire Temples, offer fruits, sweets and flowers to gods and then distribute the same among friends and relatives.

The food, dress and other customs are the same as of other Indians. Before the prayers are offered, red powder is applied on the forehead.

Many Parsis observe Holi and decorate their hands and feet with henna.

Similarities Between *Vedic Dharma* and Zoroastrianism

There is an affinity between several *Devas* such as Fire, Water, Nature; Sun, Indra, and Yama. Even the names are similar suggesting a common origin of Parsis and the Vedic people. Some of the names from the Vedas and *Avesta* are given below. Vedic names are given first:

Mitra – Mithra

Varuna – Ahur Mazda

Indra Vritrahan – Verethraghna

Yama – Yima

There are many other similarities between these two religions.

Hindu *Dharma*	**Buddhist *Dhamma***	**Zoroastrianism**
Truthfulness	Truthfulness	Truthfulness
Self control and austerities	Self control and austerities	Self control and austerities
Righteous conduct	Righteous conduct	Righteous conduct
Offering respect to ancestors	Offering respect to ancestors	Offering respect to ancestors
Charity	Charity	Charity
Invocation to the Fire *Deva*	Keeping lighted candles in the prayer room	Invocation to the Fire God Keeping the fire in the temple all the time
Goodwill towards all	Goodwill towards all	Goodwill towards all
Celebrating the arrival of each season		Celebrating the arrival of each season
Compassion towards all	Compassion towards all	Compassion towards all
11 days mourning ceremony after death		3 days mourning ceremony after death
Reverence for Nature	Reverence for Nature	Reverence for Nature

The above chart makes it clear. A comparison of Zoroastrianism with Hinduism and Buddhism

Migrations of Zoroastrians and their Assimilation in the Indian Society

Zoroastrianism thrived for almost 1,600 years in Iran. Then a series of Arab and Turkish invasions led to devastation of the life and property of the Zoroastrians. Those who survived moved to the western coast of India. From the 7th century onwards, several waves of these immigrants reached India. In the usual spirit of tolerance, Hindus, Buddhists and Jainas accepted these immigrants. Many people think of their migration as a second homecoming.

On arrival in India, the leaders of the community entered a contract with the then Shankaracharya of Dwarka to be culturally assimilated, to

obey the laws of the land and respect the customs of other communities. To this day, Zoroastrians have kept their word.

Some Famous Parsis of India

1. Field Marshall Sam Hormusji F.J. Maneckshaw – only one of the two holders of this highest rank in the Indian Army.
2. Dr. Homi Jehangir Bhabha (1909-1966) – nuclear physicist and founder of the Atomic Energy Commission of India.
3. Jamshedji Nusserwanji Tata – founder of the Tata Empire (includes companies such as, Air India, Tata Steel Mills, Textile Mills and many other enterprises). His two sons, Ratan Tata and Dorabji Tata run these companies.
4. Dadabhai Naoroji, known as the "grand old man of India" was a freedom fighter during India's independence movement.
5. Zubin Mehta is a famous musician. He led the Los Angeles Philharmonic from 1962-1978, and the New York Philharmonic from 1978-1991, and continues to lead Philharmonic Orchestras in many countries of the world. His father Mehli Mehta was a famous violinist.

Summary

From the above discussion, we can see that the *fundamentals* of these three religions are the same. Since they stress pluralism, tolerance and acceptance, all three are vibrant today and are relevant to modern day social life. Extended to political and international realities, these three religions along with Jainism provide guidelines for a true global brotherhood.

New Words to Learn

- *Gahambar* – seasonal ceremonies observed by Parsis
- *Ahur Mazda* – The Supreme Being, God
- *Muktad* – liberated soul. It is derived from the Sanskrit word *Muktatman*
- *Fravashis* – spirits of the ancestors

Concepts to Understand

1. Assimilation, acceptance and coexistence of the three faith traditions with one philosophical thread creates diversity in faith traditions, and tolerance of one for the others leads to a richer tapestry of what we call Indian culture.

2. When there is respect for each other's religion there is no conflict.
3. Parsis have assimilated well in Indian culture. Some of the richest people in India are Parsis.
4. When the minorities accept their adopted country as their home, they become part of the mainstream culture without losing their identity.
5. The history of Parsis predates the arrival of Prophet Zoroaster on the scene.
6. Some of the followers of Zoroaster were people who had migrated from India

Questions

1. Did the Persian influence shape Sanskrit language or the other way around? How can this question be settled?
2. Study the directives of Zoroastrianism given in the chapter and evaluate how akin it is to Vedic thought. Point out at least three similarities.
3. Who were Druhyus? Why did they migrate to Persia?
4. Why did the Parsis leave Iran?
5. Discuss important religious beliefs of the Parsis.

Enrichment Activity

1. The Greek sources of 2nd-3rd century A.D. consider that the invading Persian armies carried the cultural influence. Internal evidence from the Vedas and the *Zend-Avesta* (literary sources) point to the contrary. Vedic and the Iranian people were the same people—descendents of Svayambhu Manu.

   In this case which is the primary source of history? Which is the secondary source of history?

Critical Thinking Activity

1. Study the following news paper report and determine the extent of the spread of Zoroastrianism in ancient times.

   August 22, 2006

Kurdistan: Zoroastrian Temple Discovered in Duhok

The Kurdish Globe

"Kurdistan—Iraq, 22 August 2006—The temple is believed to be the most complete to have been unearthed in the region. It is also said that it was a

Metherani temple. Evidence of fires, as well as fireplaces and Zoroastrian holy sand stores have been found nearby." This temple is near Jar Ston Cave.

This information was given by the Director of Antiquities, Hasan Ahmed Qassim.

Endnotes

[1] Readers may remember that the Vedas are also arranged in ten parts known as *Mandalas*

[2] Many Hindus also decorate their doorways and the entrance to their houses.

[3] For more details, readers may refer to the book, *Festivals, Fairs and Fasts of India* by Shakti M. Gupta

Chapter 17

The Age of Assimilation and Expansion of Ideas

This chapter introduces students to the diversity of Indian culture emerging out of the assimilation of ideas of its people belonging to different *dharmas* and using different languages to express those ideas.

Vedic Traditions allow freedom to think and participate in public debates and discourses. Many *Upanisadas* are in the form of dialogues between the guru and the disciple. One famous discourse was held in the court of King Janak of Mithila. Among the great philosophers were three eminent figures—Gargi, Yajanvalkya and King Janak.

There is a mention of a famous debate between Yajanvalkya and his wife and another debate between him and his disciple about the reality of the Supreme Being. This tradition continued all through the centuries till the times of influx and the invasions around 10th century A.D.

The last famous debate chronicled is between Shankaracharya and a *Shudra* in which the *Shudra* had won the debate. Acknowledging his defeat, Shankaracharya touched the feet of the *Shudra.*[1]

Buddhists followed the same tradition. They had several councils. In these councils, the teachings of Buddha were discussed, debated and codified.

The first of these was held soon after Buddha's *Nirvana.*[2] In this council, Buddha's senior disciples systematized his teachings. About one hundred years after Buddha's passing away, the Second Council was held to discuss some *Vinaya* rules – rules relating to courtesy and protocol. Even though no controversy about the *Dharma* was reported, some orthodox monks opposed any changes. It seems even at that time, there was a possibility of a split. All three *dharmas* do not mind such splits.

This spirit of acceptance shown by various faiths led to the following three things:

a. Cultural diffusion took place,

b. Diversity of traditions and coexistence of all faith traditions emerged,

c. People were allowed to offer prayers in their regional languages and dialects. With over 1,600 dialects and languages, the same prayers and chants seem different, though they express the same aspiration.

In the following paragraphs, we will describe how the three main faith traditions blended and borrowed from each other and still retained their separate identity.

During the period between 700 B.C. and 200 A.D. several things happened in the fields of religion, architecture, customs and religious practices. The spirit of tolerance and Vedic emphasis on freedom to think, interrogate and propound new ideas gave birth to Buddha *Dharma* and Jaina *Dharma*.

Buddhist monasteries and *Viharas* were constructed. These *Viharas* were residential places where the monks not only practiced meditation and offered prayers, they also taught many other subjects to their young students. Similarly, Jainas also made residential places for meditation and teaching. These were called Jaina *Ashrams*. Buddhists and Jainas retained many of the Vedic practices in their prayers and meditation sessions.

Prior to the fifth century B.C. there is not much evidence of the Hindu temples. In the *Ramayana* and the *Mahabharata*, small temples for Gauri[3] are mentioned. Hindus performed *Yajnas* at specific occasions in the open air. Often, at the time of offering prayers, they constructed the *Murti* of the specific *Deva/Devas* they were praying to. During the *pooja*, the practice of lighting the *Diya*[4] and circumambulating the *Murti* was common. Food and flowers were offered and distributed among the people of the village. After the *pooja*, that *Murti* was submerged in the flowing water. Hinduism was not a congregational religion. It still is not.

About the fifth century B.C. Hindus started building temples. Many temples of this period were cave temples or shrines for the chosen *Deva* of the village. Under the influence of Buddhism and Jainism, larger sections of Hindus started practicing nonviolence. Even some kings refrained from wars.[5] Those who engaged in skinning dead animals were considered unclean. These people usually lived at the outskirts of the villages and the cities. This was the beginning of differential treatment given to the class called *Chandalas* or *Shudras*.

Unity in diversity, coexistence and harmony helped in assimilation. By the fifth century B.C. three main streams of *Vedic Dharma* were thriving spiritually and adding to the intellect and spirituality of the Indian people. Very soon, persecuted by the Arab invaders, Zoroastrians started arriving on the west coast of India, making India their permanent and only abode.

Spirit of Accommodation Allowed Blending and Coexistence:

1. Borrowing from each other's daily prayer routines or retaining some of the Vedic practices and beliefs was prevalent. The Common beliefs of all three *dharmas* are: *Dharma* (the righteous action), Karma, reincarnation, recognition of sanctity of all life, respect for Gurus and teachers and finding one's own path of liberation. All three religions preach control of senses and the mind as the key to self-realization and Yoga as the way to achieve harmony within the body, mind and the consciousness.

   Common practices are: lighting the lamp, circumambulating the temple or the Deity, keeping the statues of the deities in the temple, offering flowers and food to the Deity singing and chanting showing reverence and devotion to the Supreme Being. Pilgrimages to sacred places and the study of the holy texts are also common in all three religions of those times.
2. Keeping moral standards alive.
3. Keeping the title *Dharma* for their faith traditions.
4. The significant aspects of all three faith traditions continued to be meditation, austerities, fasting, yoga, self-control and attainment of spiritual knowledge.
5. Royalty did not interfere with personal beliefs of its subjects and allowed them the freedom of choosing their own faith.
6. Freedom to think and act allowed everyone to participate in public discourses.
7. Commonalities made assimilation easier.
8. Nonviolence made it possible for all to coexist.
9. Recognition of the fact that 'there are many different ways to revere the Supreme Being and that all paths are valid' helped the process of assimilation.
10. The common cultural thread linking all minority faith traditions enriched Indian culture and has made Indian culture vibrant.

11. Communal conflicts emerged when invading religions tried to decimate native cultures and traditions. This can be discussed in the light of the Chinese invasion of Tibet, communist invasion of Russia and the continuous onslaught of European and Middle Eastern religions on the rest of the world.
12. There is a great diversity in the food habits and the dress styles of Indians. It is based on regional conditions and not religions. For example, the people of Kerala regardless of religion, have different dress style and distinct food preparations.

Summary

For being the world's most tolerant society, *Dharmas* of Indian origin provide acceptance of all faiths and creeds. It is only when certain faiths repay Hinduism's tolerance through torture and plunder that the Hindus retaliate. Sandhya Jain writes, "Unlike monotheistic faiths, the *Sanatana Dharma* accords space to other creeds and India has been a civilizational haven to persecuted communities such as Jews, Syrian Christians, Parsis, Tibetans and Bahai's. It has also sought to accommodate historically aggressive communities."[6]

"Despite their size, Jainas enjoy disproportionate influence over the Hindu community and are perceived as the pinnacle of Indic spirituality. Jainas share common roots with Hindus and aver that twenty two Tirthankaras hailed from the Iksvaku dynasty of Shri Rama, while two belonged to the Hari clan of Shri Krishna. No wonder the Indian constitution[7] classifies Jainas and other native spiritual traditions as 'Hindu,' though like the others, Jainas retain their distinction on the Indic spectrum, adhering to particular forms of belief and worship."[8]

New Word to Learn

Cultural diffusion – assimilation of cultures through interchange of ideas

Concepts to Understand

1. Three distinct faith traditions emerged by the sixth century B.C.
2. These faith traditions maintained respect for each other and absorbed beliefs from *Vedic Dharma*.
3. Emphasis on nonviolence made coexistence possible.
4. Many foreign rulers such as kings of Kushana dynasty practiced *Vedic Dharma*. They also promoted Buddhism.

5. Diversity of Indian society and religious traditions is unique in the world.
6. Many Buddhist and Hindu temples exist side by side.
7. These three faith traditions are not religions of the book.
8. All three faith traditions have changed with time.

Question

1. When non-tolerant exclusivist faith traditions attack those faith traditions which believe in coexistence and tolerance, how should the latter react? Students may refer to the Chinese invasion of Tibet, communist invasion of Russia and the continuous onslaught of European and Middle Eastern religions on the rest of the world.
2. Can tolerance and intolerance coexist? Students may take the examples from the history of Spanish and English colonies in America.
3. Communal conflicts emerged when the invading religions tried to decimate the native cultures and traditions. Students may discuss this point by taking the example of European colonies in America and the fate of the native Indian tribes.
4. Hinduism is actually a Worship of Life and Death. Do Jainas and Buddhists have the same outlook?
5. Describe religions which emphasize a Celebration of Love and Worship of the Dead.
6. Free exchange of ideas leads to cultural strength; discuss this point by giving examples from your knowledge of history. Students may recall the early history of civilizations (around 4th century A.D.) in the other three continents and explain if this was the scenario anywhere else in the world.

Enrichment Activity

1. Students may be asked to connect past with the present by showing similarities of language.
2. Students should have a potluck of experiences—where each student tells others about one tradition or belief similar to his own.
3. Students may also do a report on the need for understanding diversity in faiths and culture. How can acceptance of diverse traditions help the world in getting rid of current waves of fanatic killings and prejudices?

Critical Thinking Activity

1. "Hinduism is actually a worship of Life & Death; unlike in other religions, where it is a celebration of love and worship of the Dead." Comment on this statement by giving examples from at least three religions that you are familiar with.

Endnotes

[1] *Shudras* were the skilled and unskilled workers and not untouchables.

[2] The probable date is 483 B.C.

[3] Gauri is another name for *Shakti*, Parvati. Conceptually she symbolizes the strength and essence of the creative phenomenon known as Shiva. Hence allegorically, she is considered the wife of Shiva.

[4] *Diya* is the Hindi word for a clay lamp; a small earthen shallow pot with oil and cotton wick in it.

[5] This will be discussed in section 3, chapter 20.

[6] Sandhya Jain, 'Jainas: Cream of Hindu society', *Pioneer*, May 16, 2006

[7] Indian constitution refers to Sikhs, Jainas and Buddhists as Hindus

[8] Sandhya Jain, 'Jainas: Cream of Hindu society', *Pioneer*, May 16, 2006

Asoka's pillar at Sarnath

A headless statue of a king

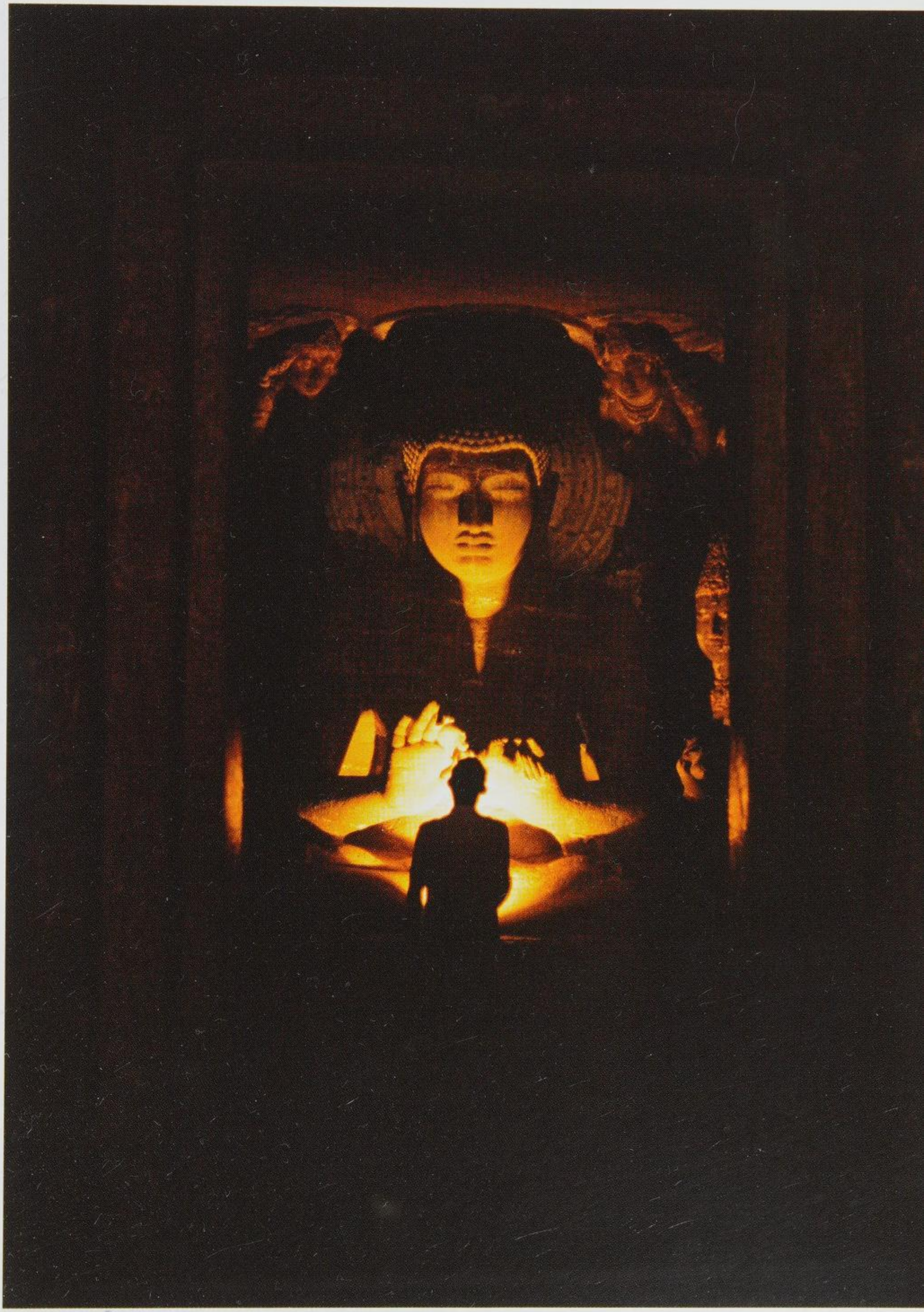
Another headless sculpture of Kushana times

Seals and coins belonging to the Kushana period

All pictures on this page courtesy: Dr. S. Kalyanaraman

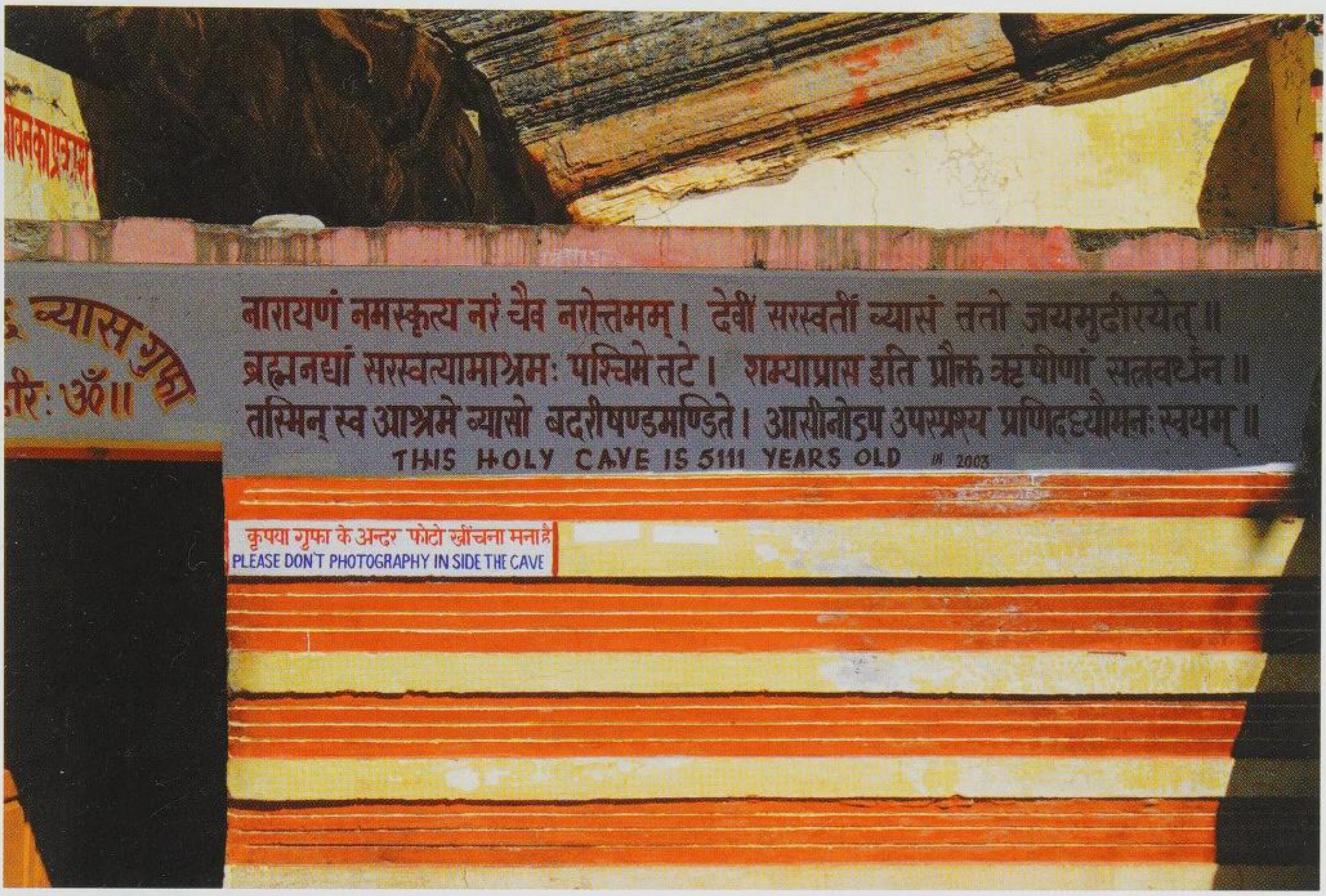
South side view of the Kailasa Temple

Scenes from Ramayana *on the panels of Kailasa Temple*

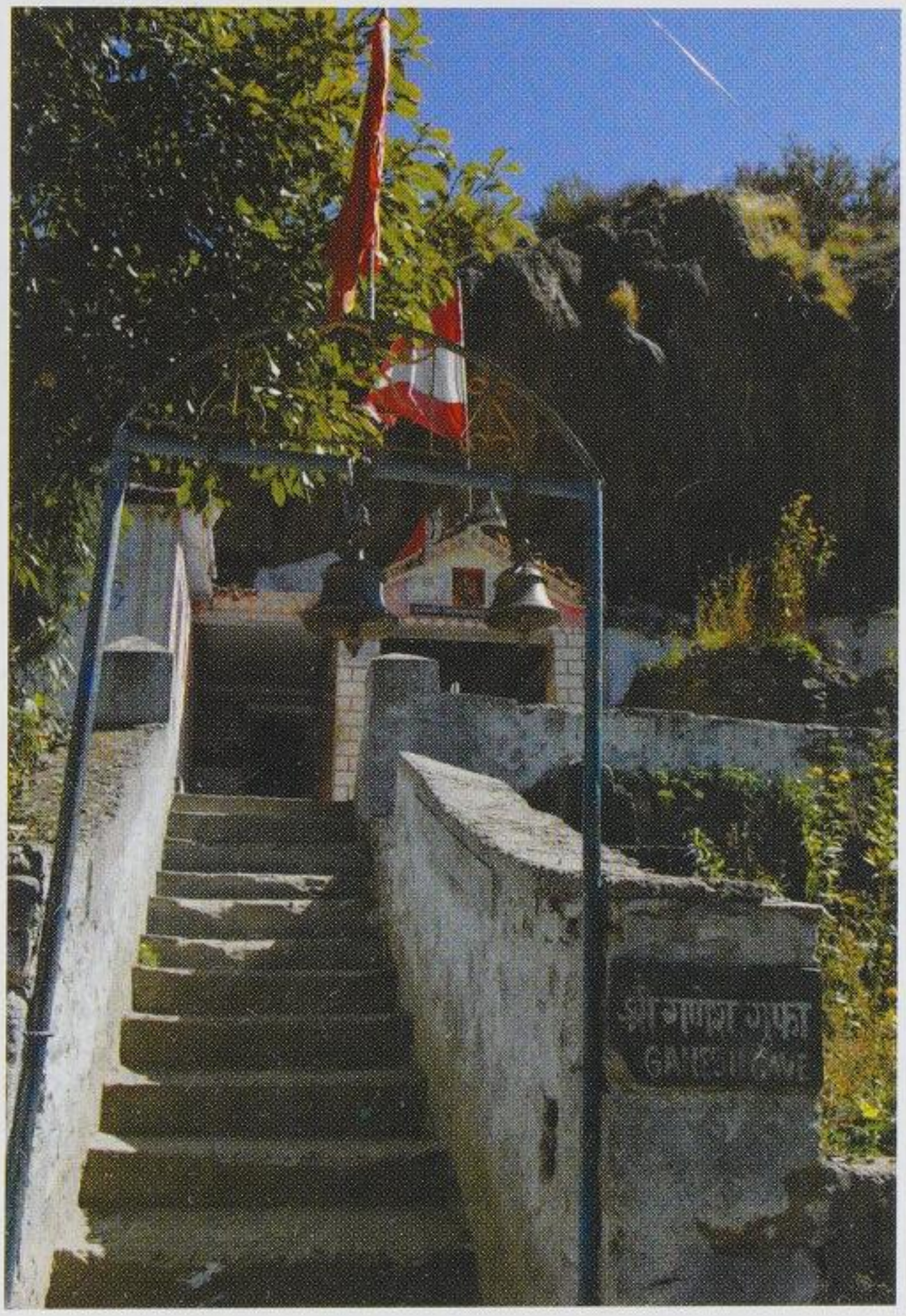


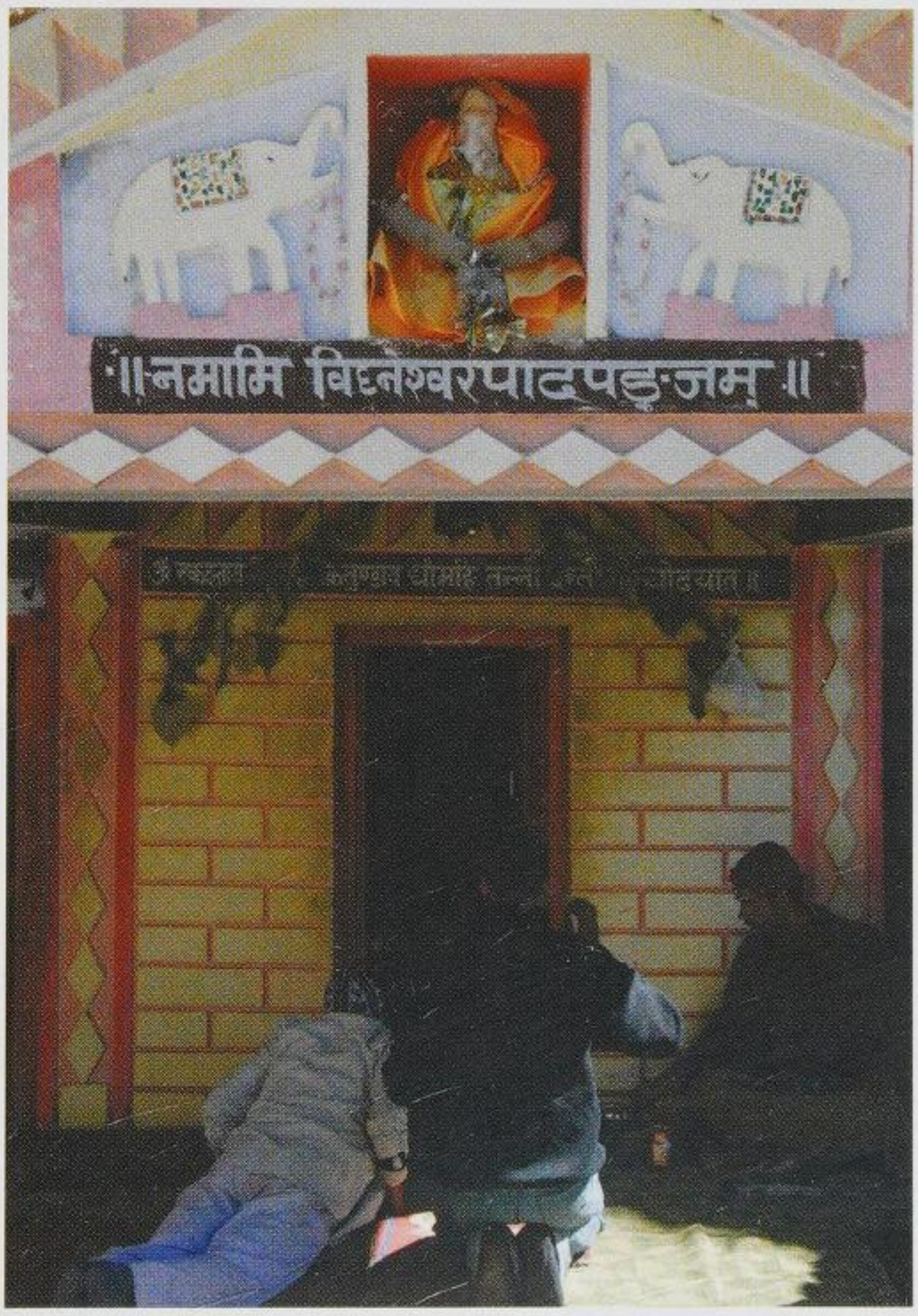
A sculpture of Gautama Buddha in one of the caves

Paintings in the Ajanta Caves



Mana Cave Temple of Vyasa





Cave temple of Ganesha

An Indian postage stamp depicting Panini

Relic of a boat found in the excavations
Courtesy: Dr. S. Kalyanaraman

Angkor Wat Temple of Vishnu

Bas relief of Ramayana

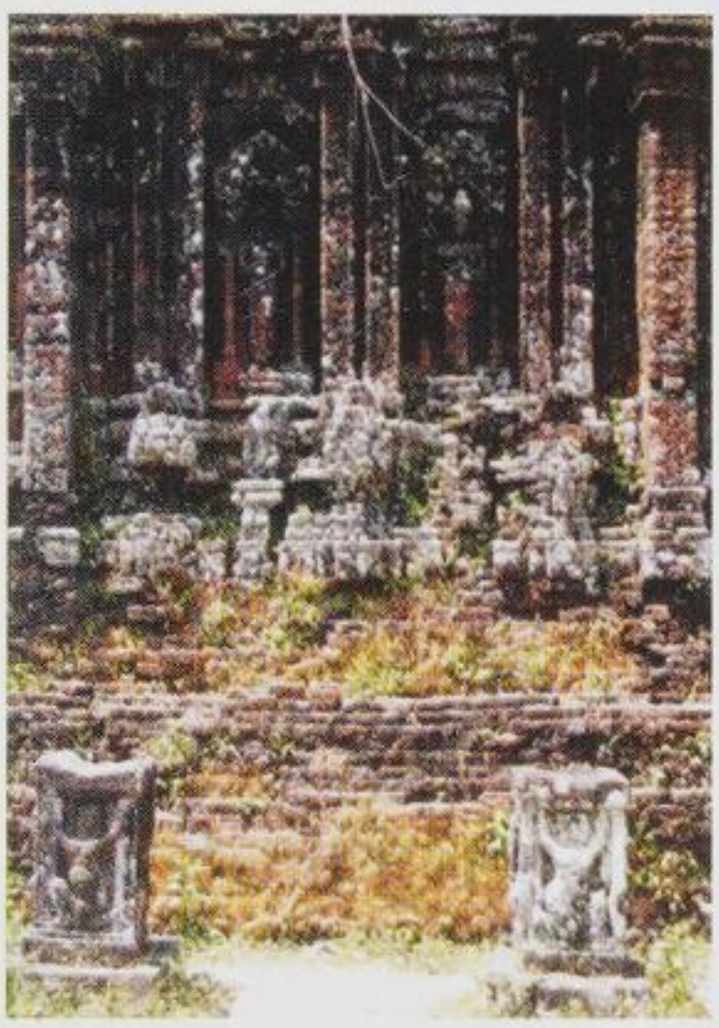
Vishnu with six arms

A scene from Srimad Bhagvad Purana

Ancient temple at Po Nagar, Vietnam

Carvings of Shiva in a temple

Library Tower

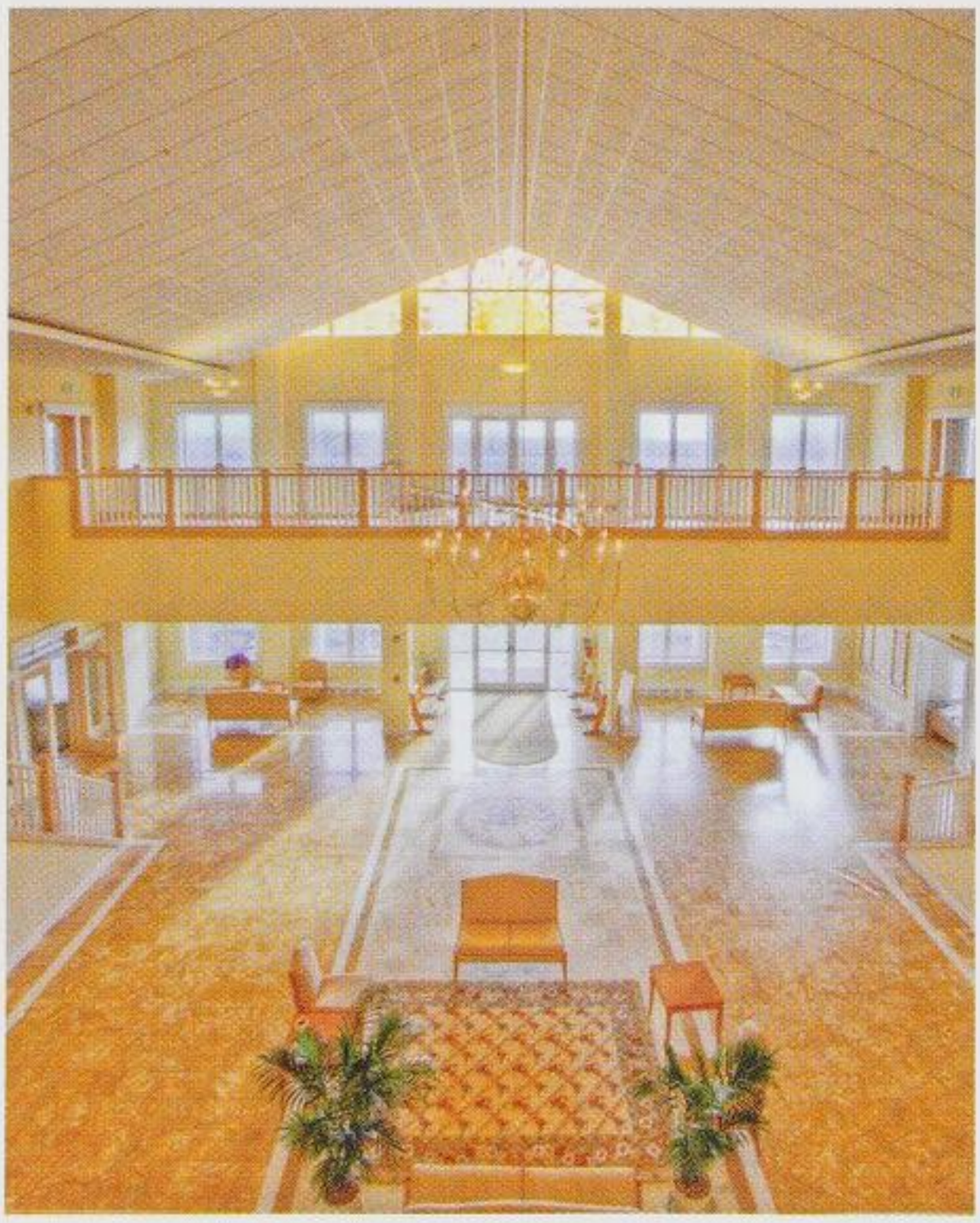


Carved sentinels on the walls

Above four pictures courtesy: http://www.davidmetraux.com/images/adventure/vietnam/large/redruins.jpg

Dreier Building (MUM)

Argiro Student Center (MUM)



Interior designed according to the principles of Vastu Sastra (MUM)

All pictures on this page courtesy: Ken Chawkin, media advisory person from Maharishi University of Management (MUM)

SECTION THREE

Ancient India During 600 B.C. to 1000 A.D.

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Chapter 18

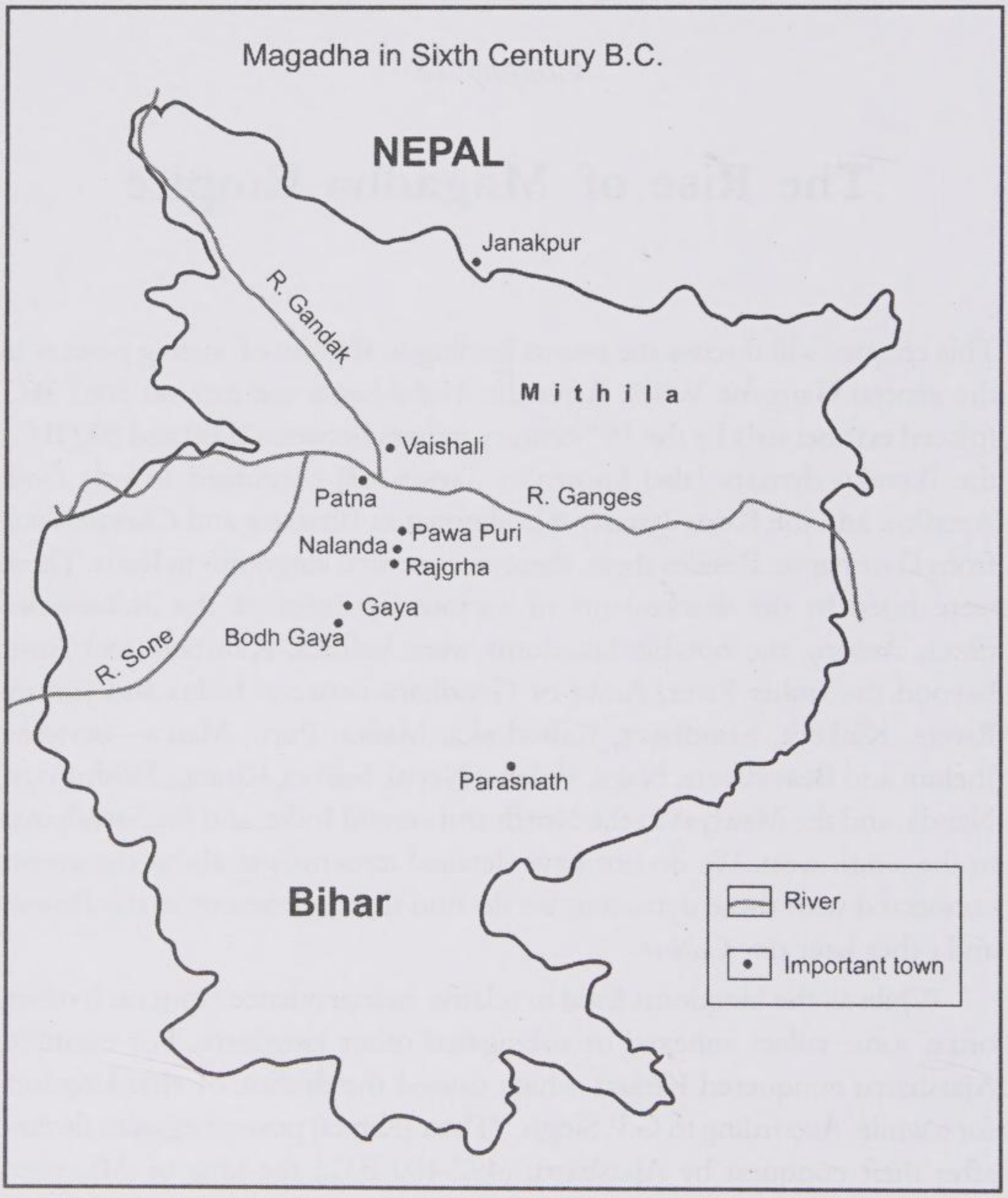
The Rise of Magadha Empire

This chapter will discuss the events leading to the rise of strong powers in the central Gangetic Valley. After the *Mahabharata* war around 3067 B.C. (placed erroneously by the 19th century writers between 1000 and 500 B.C.) the Iksvaku dynasty (also known as *Suryavansh*) continued to rule from Ayodhya and the Kuru dynasty (also known as Bharatas and *Chandravansh*) from Hastinapur. Besides these, there were several kingdoms in India. These were ruled by the descendants of various dynasties of the *Mahabharata* times. Among the notable kingdoms were Valhika, Kamboja and Arutt beyond the Indus River, Ambi or Gandhara between Indus and Jhelum Rivers, Kaikeya, Saindhava, Kshudraka, Madra, Puru, Malva—between Jhelum and Beas Rivers, Naga, Videha, Nepal, Sakyas, Kiratas, Shishunaga, Nanda, and the Mauryas in the North and central India, and the Satvahanas in the south west. We do not have detailed information about the events connected with these dynasties; we do find their references in the *Puranas* and other later day *Gathas*.

While all the kingdoms lived in relative independence from each other, often some rulers annexed or subjugated other kingdoms. For example, Ajatshatru conquered Kiratas which caused the decline of that kingdom for a while. According to G.P. Singh, "Their [Kirata] power began to decline after their conquest by Ajatshatru (492-460 B.C.) the king of Magadha, who extended his political sway over the regions lying between the Ganges and the Himalayas."[1]

At the beginning of *Kaliyuga* 5,111 years ago, the power of Kurus with their capital at Hastinapur declined. The center of power shifted towards the east. By the seventh century B.C. Magadha was becoming the most powerful kingdom. Magadha emerged as the center for the development of new ideas. Readers may remember that both Buddha and Mahavira

were born in Magadha of that time. The kingdom of Magadha included modern day Bihar, parts of Odisha, Bengal, Madhya Pradesh and Uttar Pradesh[2].



The literary records indicate the following chronology of the ruling dynasties of Magadha and areas adjacent to it such as Kalinga in the East, Chedi and Avanti in the South and Lichchavis, Kashi and Mithila in the North.

The descendants of Jarasandha, and the dynasties of Pradyota, Shishunaga, Nanda, Maurya, Shungas, Kanvas, Andhras, Kushanas and,

Gupta ruled Magadha and the areas adjacent to it. Many of the emperors from these dynasties reigned over most of the northern Indian subcontinent. The Huns ruled in the northeast and Vardhanas around Magadha and Kanauj. The significant events and achievements of these emperors and the contributions of Indians in the fields of culture and civilization during their reign will be discussed in the chapters to follow.

The total period covered by these dynasties adds up to about 1,552 years. This throws us in a serious situation. Because of the above time period based on the literary evidence[3], reexamination and fixing of the chronology of all these events of history has become necessary. It is not possible to sandwich all of these dynasties and events along with the composition of Vedic literature, the development of Sanskrit, the reigns of the Iksvaku dynasty followed by the Kuru dynasty in a short period between 1,500 B.C. and 460 A.D.

Serious efforts are being made by the Archaeological Survey of India to date the relics already found in extensive excavations. The chronology and antiquity of Vedic times to the Gupta period will become clearer, once the dating is completed. In the meantime three key points are noteworthy:

1. History and culture of India has continuity.
2. The important events and the sequence in which they happened are important for the students for a clear understanding of the undercurrents of Indian history.
3. It is also necessary to have the global context for this period. In other words, for proper perspective, what was happening in Europe and Central Asia needs to be given alongside the significant events unraveling in India in the same time frame.

Dynasties

To thread various rulers and dynasties in a proper sequence, several primary sources of history have been used; to mention a few—the *Mahabharata*, the *Ramayana*, *Bhagvad Purana*, Buddhist *Jatakas* and the Jaina literature of the period under discussion. Puranas are a source of *Itihasa* as far as genealogies are concerned. Puranas help us in corroborating the available architectural evidence with the literary evidence.

With reference to completing the account about Ajatshatru, Neeraj Mohanka noted, "Although we do not have much evidence to prove the validity of the Pre-Dynastic lineage (other than what is documented in the

Puranas), we also do NOT have any sure way to conclusively disprove it." He has included the information from Puranas in his account of the Royal Dynasties.[4]

Today, the literary works of Chanakya, Kalidasa, Bhasa, Sushruta, Charaka, Shudraka, Harsha, Vishakhadatta, Bana, Ashvaghosha, Panini, Pingla and many other eminent writers are considered primary sources of information of this long period of history.

Empires and Kingdoms

The word empire used in the context of European historical developments is different from the word *Samrajya*—commonly used in Ancient India.

All through the known history of India from the times prior to the solar dynasty, there were various monarchs ruling different parts of the country. The cultural commonness and basic concepts of ruler's kingly duties were the threads knitting the country called *Bharatavarsha*.

The title 'emperor' in India simply meant one powerful king as an overlord, protecting the weak kingdoms and ensuring their safety. For this, the weak ruler who accepted the sovereignty of the powerful king would give tributes.

What the weak rulers did NOT give up were their individual status, their institutions, sociopolitical organization, system of law, government, and customs, their language and distinctly indigenous religious practices.

Kautilya in his *Artha Sastra* has given details about the relations of smaller kingdoms under the empire to the central power. Allies of the empire were like the modern day satellite countries of super powers and in many cases these were like protectorates. With those countries which were neither enemies nor allies, emperors tried to create alliances (similar to NATO) through elaborate treaties. Even before Kautilya wrote his *Artha Sastra*, these political traditions were part of the political policy and protocol among the rulers.

Not everyone accepted the overlordship of the powerful king, wars were then resorted to. Very often the sovereignty of one over the others did not depend on the military strength of the superior king but it depended on his own personality, administrative strength and his adherence to the concept of the rule according to *Dharma*. King Yudhishthra's status as an emperor was accepted by many because of his understanding of the duties of a king and his good policies. The same applied to the reign and policies of King Rama. This pattern continued right up to the sixth century A.D.—

The period of Satvahanas in the west and Vardhanas around Magadha and Kanauj.

Used to the ideas of Roman Empire and the British Empire, many western writers make sweeping statements that since there were so many rulers in India ruling various parts of the subcontinent, there never was a country we can call India. This is a misconception. So is the whole distortion introduced by some scholars from the field of anthropology – *that there were various territories with different cultural ethos and identities. Myths like these pose serious danger to historiography.* What knitted the entire country was the common culture across all the kingdoms. The country known to its people as Bharata (their motherland) extended up to the boundaries west of Arutt and Valhika—the area today in Afghanistan. This boundary was not a boundary of a kingdom nor of several border kingdoms, it was a cultural boundary. Cultural unity that continued to exist from the Vedic times belies the myth of individual cultural *ethos and identities* of the territories. For example, people of all the kingdoms were known to others and more importantly, to themselves, as Bharatiyas. Often the kings' name also denoted his region.

The incidences of wars or invasions were not the most important part of ancient Indian history though it is true that from time to time wars and the chaos altered the map of a kingdom or led to the disappearance of a dynasty. The concept of India being a nation is not new. Kautilya redefined the boundaries of India thus, "The area extending from the Himalayas in the north to the sea (presumably the southern tip reaching the Indian Ocean) and a thousand *yojanas* wide from east to west is the area of the king emperor." He mentioned it again and again that the petty kingdoms have to unite and act as one nation to protect the culture and sovereignty of India. As a teacher at Takshashila University, he watched and educated students from all different kingdoms. Because of this experience, the vision of survival of Bhartiya nation and culture as one nation became clearer to him.

It is important to remember that the writers from Central Asia, Greece and Rome referred to the entire area east of the Hindukush Mountains as India. When we talk about Alexander's invasion, we do not mention his invasion of the Puru kingdom, the invasion is referred to as invasion of India. The same is true of all the later invasions.

All the kings from Gandhara to the southernmost parts considered themselves belonging to Bharata and their religion was basically *Vedic Dharma.* At the spiritual level, there was unity of thought but practices and

ceremonies differed from one region to the other. These still do. Hence the bold declaration that the British gave India its political unity is meaningless and a baseless generalization in the context of Indian ideas of the rulers and their kingdoms.

Around 4th century B.C., some of the kingdoms in Northern India were Gandhara, Aratta (also spelled Arutt), Bahilk (or Valhika also known as Bactria or Balkh), Puru, Kaikeya, Ambi, Nepal, Maloi (Malwa), Sindh, Kshudrakas, Madras, Magadha, Videha, Nagas, Lichchavis, Sakyas, Kirata, Kalinga, Kashi, and Avanti.

Sometime during the reign of Dhanananda, the last of the Nanda rulers, Alexander of Macedonia attacked India. While it is difficult to include the events and achievements of each one of the kings from various dynasties for a thousand years or so, we can trace the advances made by Indian civilization as a whole in these centuries. The notable events of the period are the consolidation of power under the rule of a smaller number of dynasties. Many of them extended their boundaries not only within the country but also beyond India to other neighboring countries.

During this period, these dynasties contributed to the consolidation of statehood, systematization of administration, cultural enrichment of the country and the spread of Indian religions and culture to the distant lands. Agricultural developments and industrial growth through small scale factories were noticeable. Welfare of the people was of prime concern to the kings and it was taken care of through the maintenance of proper law and order, espionage system and military services. *Considering the size of the subcontinent, each kingdom was almost the size of a European country* or *even larger.*

It should be remembered that in the ancient times and all through the times up to the independence of India, India always had several kingdoms in the subcontinent—their capitals different and the extent of their empires expanding and shrinking depending on the administrative wisdom, strategy and strength of the king. For example, Kanishka's reign extended to the borders of what are today Uttar Pradesh, Bihar and Nepal. However, after his death, as the kings of Gupta dynasty expanded their territory, both the Kushana and the Satvahanas almost disappeared. Most of the conquests were made during the reign of Samudragupta who expanded the Gupta Empire. This will be discussed in a later chapter.[5]

Magadha has a long continuous history. During the *Mahabharata* times, Jarasandha ruled the kingdom. Before the *Mahabharata* war he was killed by Bhima (son of Pandu). His son was crowned the king of Magadha. Thus, Magadha continued to be ruled by his descendants for several

centuries. The last descendant of Jarasandha was killed by his own army chief Pradyota. Pradyota founded a new dynasty known as the Pradyota dynasty. Around 624 B.C., the Shishunaga rulers came into power and for the next 400 years the Shishunaga dynasty ruled most of India from the capital at Kashi and then from Rajgraha. The most famous rulers of this dynasty were Bimbisar and Ajatshatru who annexed parts of modern day Bihar and Odisha. Shakya province where Gautama Buddha was born was a part of the Magadhan Empire. It is interesting to note that Mahavira was born in the province of Vaisali and that too was a part of the Magadhan Empire.

Step by step Magadha emerged as the most prominent empire expanding its borders up to Gandhara in the west, Kalinga in the east and Andhra Pradesh in the south; thus, its history was that of India itself for a pretty long period.

Shishunaga Dynasty

Shishunaga dynasty wrenched the kingdom of Magadha from Pradyota rulers. During the reign of Shishunaga rulers, Gautama Buddha was born. The most illustrious and also the most controversial ruler of this dynasty was Ajatshatru.

Ajatshatru 552–527 B.C. [6]

Ajatshatru also known as Kunika succeeded his father Bimbisar. His capital was at Rajagrha (modern day Rajgir in Bihar). There are several legends about the reign of Ajatshatru. According to one of them, "Bimbisar made over the charge of government to his son Ajatshatru when the latter was about to stab him with a dagger but was overpowered by the officers. Ajatshatru, however, starved him to death, and afterwards expressed repentance to Buddha for his sin." This is the rarest incidence of patricide in Ancient Indian history.

Ajatshatru expanded his empire by annexing vast territories between the river Ganges and the Himalayas including the kingdom of Kirata.[7] One can read many more stories about Ajatshatru in the Buddhist *Jatakas* and the Jaina literature. According to these sources, Devadatta (perhaps an influential person in the court of Bimbisar) hated Lord Buddha, but the king Bimbisar supported Buddha. He instigated Ajatshatru to kill his father. It is said that after his father's death, he could not sleep at night. It was only after meeting Buddha, that he got some peace of mind. After Buddha's *Nirvana* Ajatshatru successfully claimed some relics of Buddha, which he brought to Rajagrha. He got a stone *stupa* erected over these relics. Soon

thereafter, when the first Buddhist Council was held in Rajagrha, he promised royal patronage and assisted the monks who took part in it. Ajatshatru's reign lasted for 25 years. During this period, he conquered and annexed parts of the territories belonging to the Kiratas whose power began to decline after this.

During the reign of Ajatshatru, foundations of Pataligram which later came to be known as Pataliputra were laid. King Ajatshatru employed two of his ministers: Sunidha and Vassakara, to build a fort at Pataligram. He needed to protect his people from invasion by the neighboring kingdom of Licchavi Kings at Vaisali.[8]

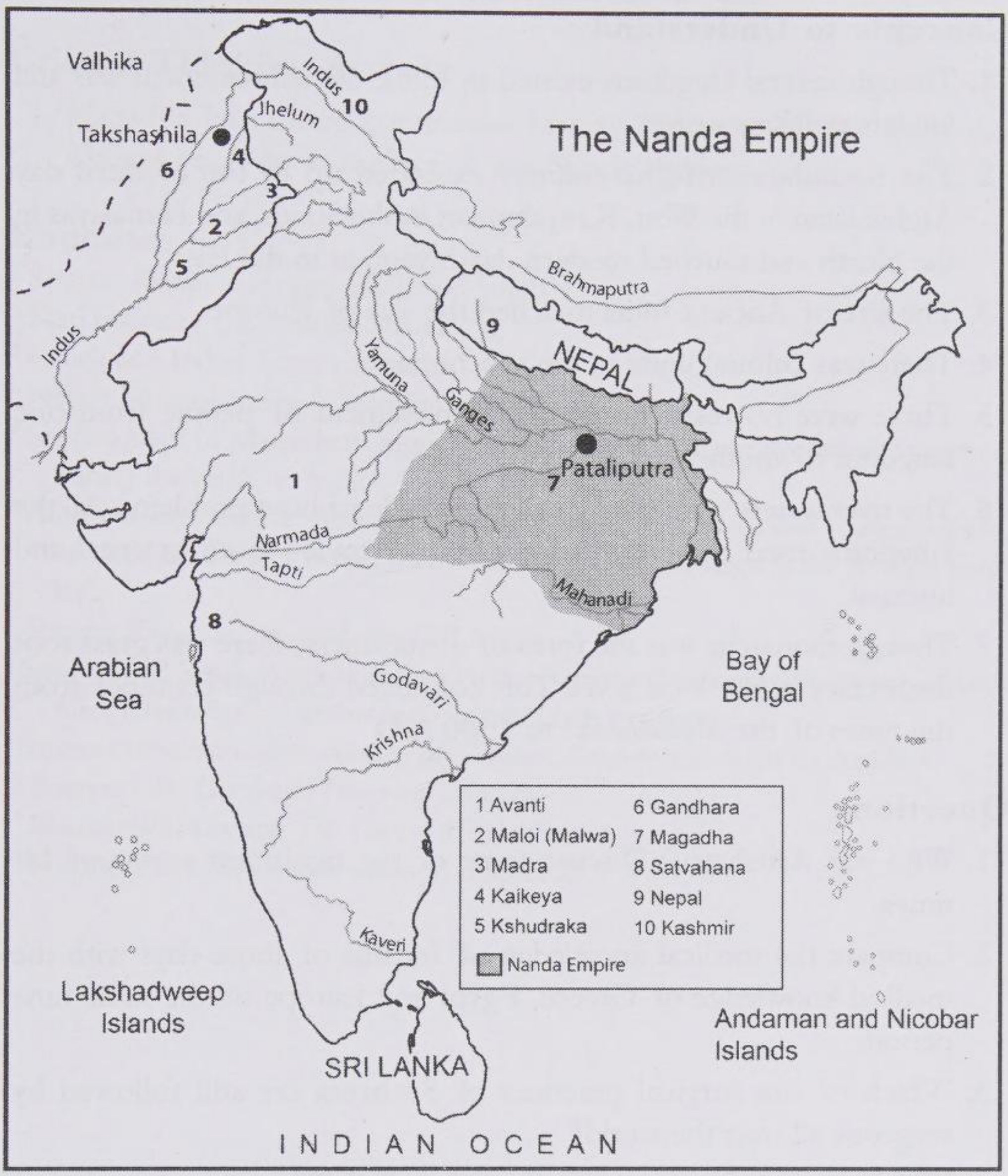
This period saw a great Ayurvedic doctor Dhanvantari. Among the most noted of his disciples were Sushruta and Jivaka. Jivaka was the personal physician of Lord Buddha.

Sushruta was a surgeon. He wrote *Sushruta Samhita*[9] in which he gives details of about 300 operations and 42 surgical procedures. In his treatise, he classifies surgery into eight types—extracting solid bodies, excision, incision, probing, puncturing, suturing, scarification and evacuating fluids. Sushruta used 125 types of instruments which included scalpels, needles, lancets and catheters to name a few. He also describes various ways of stitching – using goat's gut, horse's hair, fine threads and fibres of bark. He advocated dissection of the dead body for training surgeons. "The ancient Hindus performed almost every major operation except ligation of arteries."[10] Sushruta laid down detailed rules about preparation for a surgery. He recommended the use of certain intoxicants as anesthesia. To sterilize wounds, fumigation was used. "He was the first to graft upon a torn ear portions of skin taken from another part of the body."[11] Rhinoplasty—the surgical reconstruction descended from Sushruta and his successors to modern medicine.[12]

The Nandas

The Nandas created the large state of Magadha (central Gangetic valley). They used conquests, diplomacy and matrimonial alliances and pushed their boundaries up to the north of the Vindhyas Mountains. Many neighboring kingdoms such as Kashi and Nepal were allies of the Nandas. The Nandas ruled for about 150 years when their last ruler Dhanananda was overthrown by Chandragupta Maurya around 4th century B.C.

During the last years of Dhanananda's reign, India's map looked as follows.



Summary

After the *Mahabharata* War, several kingdoms known as *Ganapadas* existed in the subcontinent of India. When some kings emerged as emperors, the weaker kings became their feudatories. This political scenario continued for several centuries. Empires and the kingdoms shrank and expanded depending on the personal ability and valor of the king.

New Words to Learn

- *Janapada* or *Ganapada* – The Sanskrit word for republic often used for a kingdom also
- *Samrajya* – empire
- *Samraat* – emperor

Concepts to Understand

1. Though several kingdoms existed in India, the subcontinent was still known as *Bharatvarsha*.
2. The boundaries of the country extended up to the modern day Afghanistan in the West, Kanyakumari in the South, and Himalayas in the North and touched modern day Myanmar in the East.
3. The size of Ancient India matched the size of Europe.
4. There was cultural unity in the subcontinent.
5. There were no restrictions on the movement of people from one kingdom to another.
6. The river waters were used by all the people without problems. All the kingdoms used these rivers for maritime trade—both external and internal.
7. Though monarchy was the form of government, there was grass root democracy at the local level. This continued through centuries from the times of the *Mahabharata* to 1,300 A.D.

Questions

1. Who was Ajatshatru? Discuss some of the significant events of his times.
2. Compare the medical knowledge of Indians of those days with the medical knowledge of Greece, Egypt and Europe of the same time period.
3. Which of the surgical practices of Sushruta are still followed by surgeons all over the world?
4. Which two religions were born in Magadha? Who were the rulers at that time?
5. In the fifth-sixth century B.C. what was the political scenario in Europe and Central Asia or China? Students may pick only one of these three regions for comparison.

Enrichment Activity

1. On a blank map of the subcontinent, students may show some of the kingdoms of this period. The river map of India provided in section 2, chapter 5 can be used for locating the kingdoms.
2. Students may use another map of Ancient India and show the trade routes and important cities of those days.

Critical Thinking Activity

1. Magadha has a long continuous history. Trace its history from the *Mahabharata* War to the rise of the Nanda dynasty.

Endnotes

[1] Source: *Kiratas in Ancient India,* G.P. Singh

[2] Map courtesy, Dr. Ananda Sharan

[3] Greek and Indian literary sources

[4] Neeraj Mohanka, *Royal Chronology of India*

[5] See two maps of Magadhan empire, one just before Mauryan dynasty and another during the reign of Asoka.

[6] All dates are tentative. According to the *Puranas*, Ajatshatru was contemporary of Lord Buddha. However many historians place his reign in the fifth century B.C.

[7] Source: *Kiratas in Ancient India*, G.P. Singh,

[8] Source: G.P. Singh, 'Ancient Indian Historiography: Sources and Interpretations' Also, *Chronology of Ancient India* by Sita Nath Pradhan

[9] Source: Hindi/Sanskrit version of *Sushruta Samhita* translated by Atrideva

[10] Source: F.H. Garrison, *History of Medicine*

[11] Source: Will Durant, *The Story of Civilization*

[12] For more details, check section 3, chapter 27

Chapter 19

The Invasion of Alexander and its Impact

Alexander and the Invasion of Border States of India

Alexander, the prince of Macedonia (then a small city state of Greece) was under the tutelage of Aristotle. Aristotle did not find Alexander fit for studies in philosophy or gifted for any other intellectual pursuit. He suggested to Alexander that he might go back to his city and think of conquering the world. Perhaps what Aristotle said casually became the greatest ambition of Alexander's life. Many historians of that time agree with A.W. Benn that Alexander was "arrogant, drunken, cruel, vindictive and grossly superstitious." However, about three hundred years ago, many western historians started glorifying his conquests and in the history books he began to be considered Alexander the 'Great'.

During the reign of the Nandas, he overran Persia and Afghanistan and reached the Indus River in 326 B.C[1]. At that time, Ambi was the King of Gandhara. This kingdom extended on both sides of the Indus River. It was a buffer state between Parthians and the Indian kingdoms. His capital was Takshashila.[2]

Takshashila

It was generally believed that Takshashila was a prosperous town around 6th century B.C. However, according to many historians, the university town was much older. Panini the famous grammarian studied there in the 6th century B.C.

Recently, new archeological evidence has confirmed the views of those historians. Here are excerpts from a recent report about the evidence collected from the excavations done in the vicinity of Takshashila:[3]

'Takshashila 600 years older than earlier believed'[4]

"Lahore, March 23: Recent excavations at Takshashila have pushed back the history of the ancient settlement by another six centuries to the Neolithic age.

Earlier, artifacts collected by Sir John Marshall had dated Takshashila back to 518 B.C. The new study also indicates the existence of many other cities in the valley between 1,200 B.C. and 1,100 B.C."

Relics such as potsherds and terra-cotta objects found 15 feet down at the lowest level of the occupation places Takshashila in the time frame of the advanced phase of Indus-Sarasvati Civilization. The exact time frame will be determined once all the artifacts are dated. Earlier, Sir John Marshall, who excavated several Takshashila sites between 1913 and 1934, had found four occupational levels. The latest study has unearthed six occupational levels. A report by Archeology Department of Pakistan and the United Nations Educational, Scientific and Cultural Organization (UNESCO) also reveals fascinating information about an integrated drainage system including both open as well as covered type of drains in Takshashila. The discovery of three wells suggests that people used fresh water for cooking and bathing. These community wells had raised walls which protected the wells from refuse.

"Yet another discovery is that of a hall and adjacent chambers which archeologists understand were part of a palace of the then ruler, King Ambi. The evidence of the hall is based on pillars and walls which have been found at the Bhir Mound's fourth occupational level." More than 600 ancient objects have been found from the site, which include terra-cotta pottery and clay figurines and objects made from shells, iron and copper. Excavations around the area[5] by John Marshall led to the discovery of some of the artifacts which reveal the richness of the civilization at that time. The artifacts include delicately carved stones, highly polished statuary, coins as old as 600 B.C. and glassware of a fine quality. Metal and terra-cotta utensils have been found in the rooms, bathrooms and kitchens.

The palace where King Ambi is believed to have received Alexander in 326 B.C. has abundant evidence of a royal living. A kitchen and a bar have been unearthed on the palace site. Literary accounts of the period suggest that the palace had a big assembly hall for political meetings and for entertaining the royal guests with dance performances and musical recitals.

Speaking about these times, Vincent Smith, a noted historian, writes, "It is manifest that a high degree of material civilization had been attained and that all the arts and crafts incident to the life of a wealthy, and cultured city were familiar."[6]

Ambi, the king of Takshashila offered to support Alexander with his army. Despite that, Alexander had a difficult victory over the northwestern kingdom of Kaikeya under king Porus[7]. Porus became his vassal and helped him in his further conquests. Thus aided, Alexander overran the small kingdoms between the rivers Chenab, Ravi and Beas. These victories did not boost the morale of his war-weary army. He did not try to go further towards the east. Instead, he left a part of his army at Bucephala and Nicaea (situated on the western bank of the Indus River) and went down the Indus River and left by boats. He did not reach his country and died on the way at Susa in Babylonia. In an uprising in the border kingdoms of Gandhara, Valhika, Arutt and Kshudrakas, the Greek *satraps* were killed and their two garrisons were destroyed. During the reign of the Mauryas, the Greek traders and messengers kept visiting India. Megasthenese was a famous traveler who visited India during Chandragupta's reign. His accounts are not available now but excerpts from these can be read as quoted in the works of the Greek historians of his time.

One must analyze some pertinent questions about Alexander's invasion. How far did Alexander reach in his conquest of India?

His dream was to conquer the world. His ambition was to subjugate the kingdoms in the valleys of the rivers Ganges and Yamuna. He could only reach west of the river Beas. How long did he stay there? It took him over a year to overrun the area between Indus and the Beas rivers. Why did he leave India so soon? His army was weary and was afraid to undertake a journey across the desert and the hostile territories.

Did he leave any lasting impact? For about two years his *satraps* continued to exert their hold on the conquered territories but Chandragupta Maurya with the help of his mentor Kautilya and the freedom fighters (from the general public and the university students) defeated the small groups of Greek army which relied on the military support of the kings of Takshashila and Kaikeya. Once that support caved in, these groups could not hold on to the lands.

Onesicritus, one of Alexander's officers and biographers writes that King Porus sent him to the Indian sages, only to be ridiculed by them. Arrian of Nicomedia, states that Alexander personally interviewed the

Brahmans. On the appearance of Alexander and his army, these venerable men stamped with their feet and gave no other sign of interest. Alexander asked them through interpreters what they meant by this odd behavior, and they replied: 'King Alexander, every man can possess only so much of the earth's surface as this we are standing on. You are but human like the rest of us, save that you are always busy and up to no good, traveling so many miles from your home, a nuisance to yourself and to others. Ah well! You will soon be dead, and then you will own just as much of this earth as will suffice to bury you.' Alexander expressed his approval of these wise words; but in point of fact his conduct was always the exact opposite of what he then professed to admire.

The Story of Pourava (Porus)

Porus was the king of Kaikeya, a hilly region between Jhelum and Chenab rivers. He was therefore known as *Parvateswera*[8] and *Kaikeyia*. After his defeat, Alexander asked Porus how he should treat him. Porus answered, 'Like a king.' Appointed by Alexander as a vassal, Porus continued to rule the area between Jhelum and the Beas rivers till the death of Alexander.

We know that the history of Alexander was compiled a couple of hundred years after his death and was based upon the material that was then available. It is possible that the original letters, diaries and other such material could have revealed more about the events and the key characters who played such vital roles at that time. Unfortunately these records did not survive.

Students may note that the destruction of the library of Alexandria was a great loss to history. Literature is a primary source of historical evidence and when it is destroyed all we are left with are monuments, some hieroglyphs and seals. The destruction of Nalanda and Takshashila universities was a similar loss for history and for mankind.

Alexander's Place in History

Earlier history books mentioned that Alexander came as a tornado and left as a storm. However, he did not go beyond the Beas River. Most of the time, he was engaged in battles and skirmishes in the Panchnad[9] valley. His troops remained in the two garrisons west of the Indus River.

The Greeks neither made any cities nor left an architectural/cultural impact. This myth was first promoted by the British compilers of history. The Greeks lived in camps beyond Gandhara—kingdoms known as Valhika; and after the demise of Alexander, Greek garrisons (under the

protection of Porus and Ambi) were destroyed and many Greeks unsupported by the local kingdoms left the area.

Greatness of Alexander is Questioned

According to Mumbai-based Firuza Punthakee Mistree, coauthor of the book *Zoroastrian Tapestry*, "Unlike the Western world, the Parsis know Alexander as the accursed because he had murdered the community's priests, destroyed fire temples and burnt down Persepolis, the ancient capital of the Persian empire."

In the case of India, we know that Aristotle said in *Politics* that "Hindus are the only people in the world to have successfully organized their polity on the basis of *Dharma*."

Many Parsis and Zoroastrians question the greatness of Alexander. For them, Alexander was no less a tyrant than Genghis Khan or Attila the Hun or Hitler.

Summary

Alexander, the Prince of Macedonia was a great warrior. His ambition to conquer the world brought devastation to Central Asia, Iran and North Western parts of India. He left India hurriedly because his weary army refused to march forward. He died on his way to Greece. He did not leave any administrative machinery to retain control of the conquered territories. There was no impact of the invasion. For a while, there was turmoil in Greece and in the conquered land of Central Asia. His successors were warring against each other. Later, Seleucus consolidated the remnants of the empire and invaded India but was defeated by Chandragupta Maurya.

Centuries later when the Kushanas gained control of India, the Greek art styles were assimilated in the existing Indian art styles. The new school of art came to be known as Gandhara School of Art.

Concepts to Understand

1. When the conquerors have no plans for governing conquered territories, these territories are taken back by the natives of these lands.
2. Greater cultural diffusion has taken place through the interaction between traders and tourists than as a result of invasions.
3. Invasions have left a trail of slavery, plunder, devastation and bloodshed.
4. Wars and skirmishes were common among the Greek cities of those days.

5. Wars and conflicts were common among the kingdoms of India also but the difference was that the Indian kingdoms did not attack and kill the farmers and the general populace. There were rules of warfare and most kingdoms took pride in following those rules.
6. Alexander's invasion was an eye-opener for the Indians. For the first time they realized that people living in the regions beyond India did not have a set of rules for warfare nor did they fight fair.

Questions

(For answering questions 1, 2 and 5 read the report given in the section, Critical Thinking Activity on the next page.)

1. How do murals reveal the truthfulness and valor of Porus?
2. Why does the writer of the report feel ashamed?
3. If the library of Alexandria had not been destroyed, what type of evidence would be available to us today?
4. When universities and libraries are destroyed, literary sources of history are destroyed. We are then left with only architectural ruins and hieroglyphs to weave the threads of history. Students may describe some recent events in Iraq and Afghanistan and discuss the incidences which have caused the destruction of evidence.
5. What was the purpose of Apollonius' visit to the Indian subcontinent? What were the most noticeable aspects of Indian culture he noticed during his visit?
6. As more information and evidence come to light, stories of kings and the people change. Is historiography a fossilized science?
7. Examine the accounts from at least two different countries or two different sources to prove that the narration of history by writers living two centuries ago was inadequate or probably inaccurate.
8. Latin and Greek sources may throw partial light as those writers were not aware of basing history on excavations and archeological evidence that surfaced in the region only recently. Using new web links; narrate the story of Alexander and India of his times.
9. Alexander had an ambition to conquer the world. He marched from Greece to India, leaving a trail of destruction and death. Hitler and Napoleon also had similar ambitions and waged several bloody wars to achieve that purpose. Should history glorify Alexander while condemning Hitler and Napoleon?

10. Discuss the achievements and ambitions of Alexander, Hitler and Napoleon.

Enrichment Activity

1. Invasions are neither auspicious for the invader nor for their victims. For both parties, bloodshed is their fate. Discuss this statement by taking the example of any other great war.
2. From the point of view of Indian polity (4th century B.C.) based on *Dharma*, how can Alexander—a mere invader—be considered Alexander the Great? Students may be asked to discuss the criteria for heroism in the context of invasions, good administration and the cultural contribution to mankind by specific groups and societies. Do historians use the adjective 'Great' for Napoleon or Hitler? If not, give reasons for your answer.

Critical Thinking Activity

1. How does our perspective on events change as new artifacts or literary evidence come to light? These primary sources keep surfacing all the time; therefore what someone wrote about a particular event a couple of hundred years ago using only one or two sources becomes an inadequate account of the event later on. Read the following story and discuss the merit of the above statement with reference to the story of Alexander's invasion of India.

Excerpts from Salman Rashid's article[10],

"If it were not for Damis!" Around the year 44 A.D., Apollonius, a Greek philosopher visited Takshashila with his guide Damis who knew many languages. "Apollonius had to wait three days before he could enter Takshashila. The sole purpose of his journey from his home in distant Tayana (near the town of Kayseri in central Turkey) was to hobnob with the philosophers of Takshashila. Conversant with history he well knew these men were descendents and followers of those whose brilliance had dazzled Alexander of Macedonia 350 years earlier. He now wanted to share their ideas and learning." These "three days he was waiting for royal permission to enter Takshashila; Apollonius spent in a temple outside the city walls. Within this temple, we learn from Damis' diary, was a small shrine dedicated to two great kings this part of the world had known just 340 years earlier: Paurava (who became Porus on Greek tongues and passed on down to us in that form) and Alexander. Apollonius was captivated by the accurate portrayal of the battle scenes. Being in full color, the representations were noted for their 'correctness

of drawing, vivacity of expression, and truthfulness of perspective...' The visiting philosopher was particularly impressed to note that the depictions showed a vanquished Paurava and a victorious Alexander. He found it especially noteworthy that these murals were put up after Porus received the news of Alexander's death in distant Babylon. To the philosopher this was proof of 'the noble character of Porus'. He understood the value of truthfulness in the preservation of history. "Two thousand years after Alexander passed away into eternity, we who inhabit his erstwhile kingdom are ashamed to claim him as our greatest hero ever. If we need a hero to emulate today it is Raja Paurava. And if it were not for Damis, we would never have discovered the real character of Raja[11] Paurava."

Endnotes

[1] All dates are approximate.

[2] Takshashila was also the university town and was more famous for Takshashila University; the oldest university of the world.

[3] Students may remember that since 1947, Takshashila area is in Pakistan

[4] Reported by Mahmood Zaman, on 24 March 2002

[5] The place is some twenty miles from modern day Rawalpindi in Pakistan. Source: *Encyclopedia Britannica*, vol. 12, p. 212

[6] Vincent Smith, *Oxford History of India*

[7] See the whole story of Paurava through the eyes of the Greek visitors and the diaries of Dimmi http://www.jang.com.pk/thenews/nov2004-weekly/nos-21-11-2004/foo.htm#1
Also check the following links for more information:
http://www.livius.org/ajal/alexander/alexander_z1b.html#onesicritus"> Onesicritus
http://www.livius.org/arl-arz/arrian/arrian.htm

[8] This title means king of the mountains

[9] Old name of the undivided Punjab (including Pakistan)

[10] Salman Rashid, 'Footloose: In the throne room of Gondophares', *Daily Times*, Pakistan, April 25, 08
Link:http://www.dailytimes.com.pk default. asp ? page = 2008 % 5C04 % 5C25 % 5Cstory _ 25 - ...

[11] Raja means king

Chapter 20

The Maurya Dynasty

This chapter focuses on the rise of a new empire at Magadha, founded by Chandragupta Maurya. The reign of Chandragupta Maurya and his successors is a landmark event because under their rule, India was once again unified as an empire.

Emperors

- Chandragupta Maurya c.321-297 B.C.
- Asoka c.272-235 B.C.
- Devavarman
- Kunala
- Satadhanvan
- Bindusara c. 297-272 B.C.
- Salisuka
- Brhadratha c. 190-181 B.C.

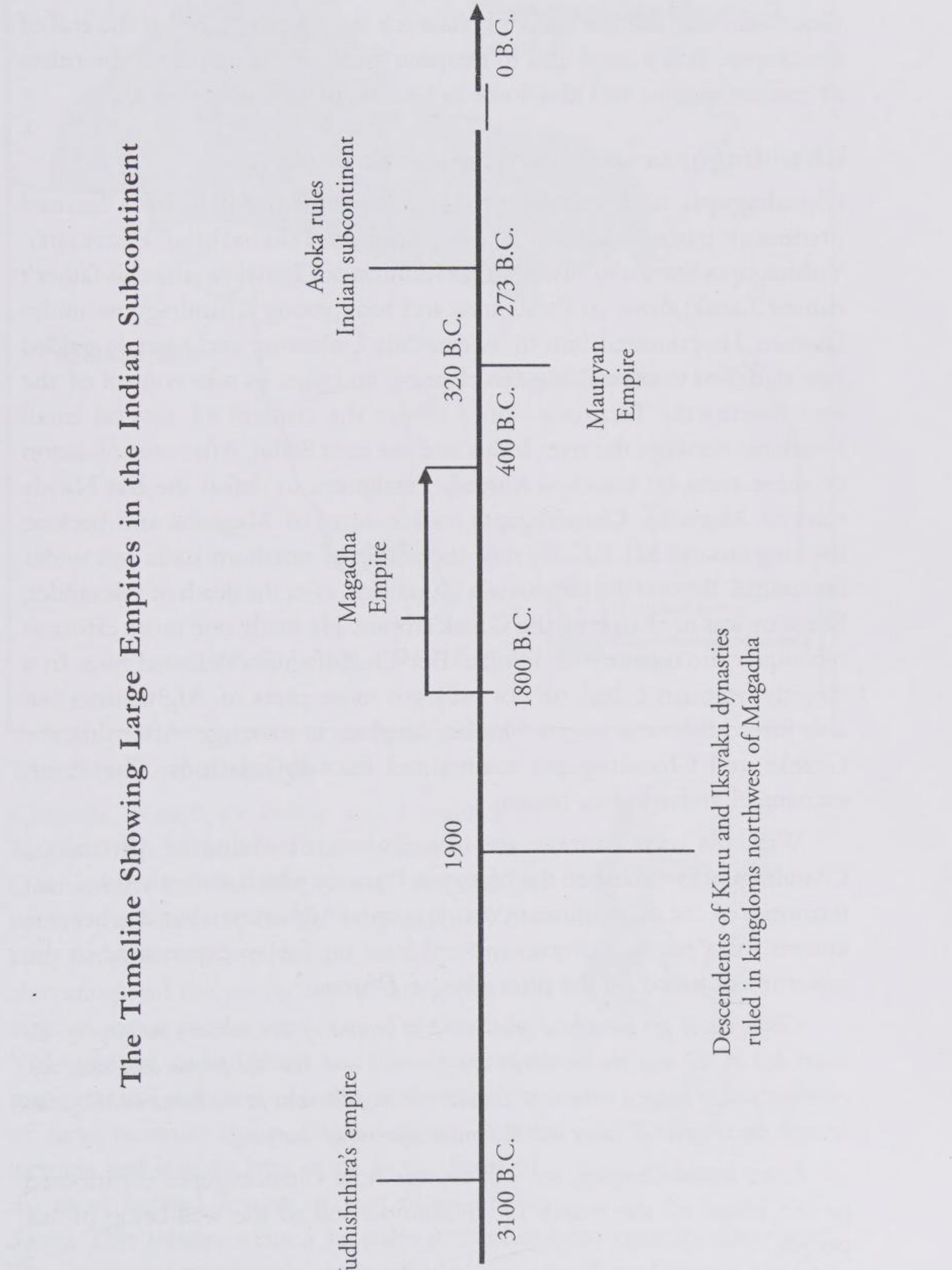
Possible Chronology

In 321 B.C., Chandragupta drove the Macedonian garrisons from Punjab and Sindh and a year later he freed the republics of Arutt (southwest of Indus river) and of Valhika (northwest of Indus River). In 305 B.C., Seleucus Nicator invaded the Northwest Territory. He was defeated. Chandragupta gained three more provinces and the empire was secured.

In 297 B.C., Bindusara became the emperor. In 273 B.C., Asoka became the emperor. In 232 B.C., Asoka died, the decline began. In 184 B.C., the empire collapsed.

Chandragupta Maurya started the dynasty after his mother's name Muri. He was the son of Dhanananda. His mother was a personal maid of Dhanananda who raised her son with the help of her brother. Chandragupta did not know about his father. He consolidated the erstwhile Nanda Empire along the boundaries of the Himalayas in the north and to the Vindhyas in the south. His capital was Pataliputra. His grandson Asoka extended the boundaries even farther, up to the Kaveri River. Thus for the first time in a long period, Indian kingdoms came under one ruler which forged in them a sense of one nation at a time when most of the world was in confusion and turmoil of warring small city states.

The Timeline Showing Large Empires in the Indian Subcontinent



To gain a historic perspective, the students may develop a *Eurasian scenario* by comparing the conditions in Europe and Central Asia at that time. They may use the blank timeline for the purpose given at the end of the chapter. It is a good idea to mention some of the names of the rulers of various regions and kingdoms in Eurasia of that time period.

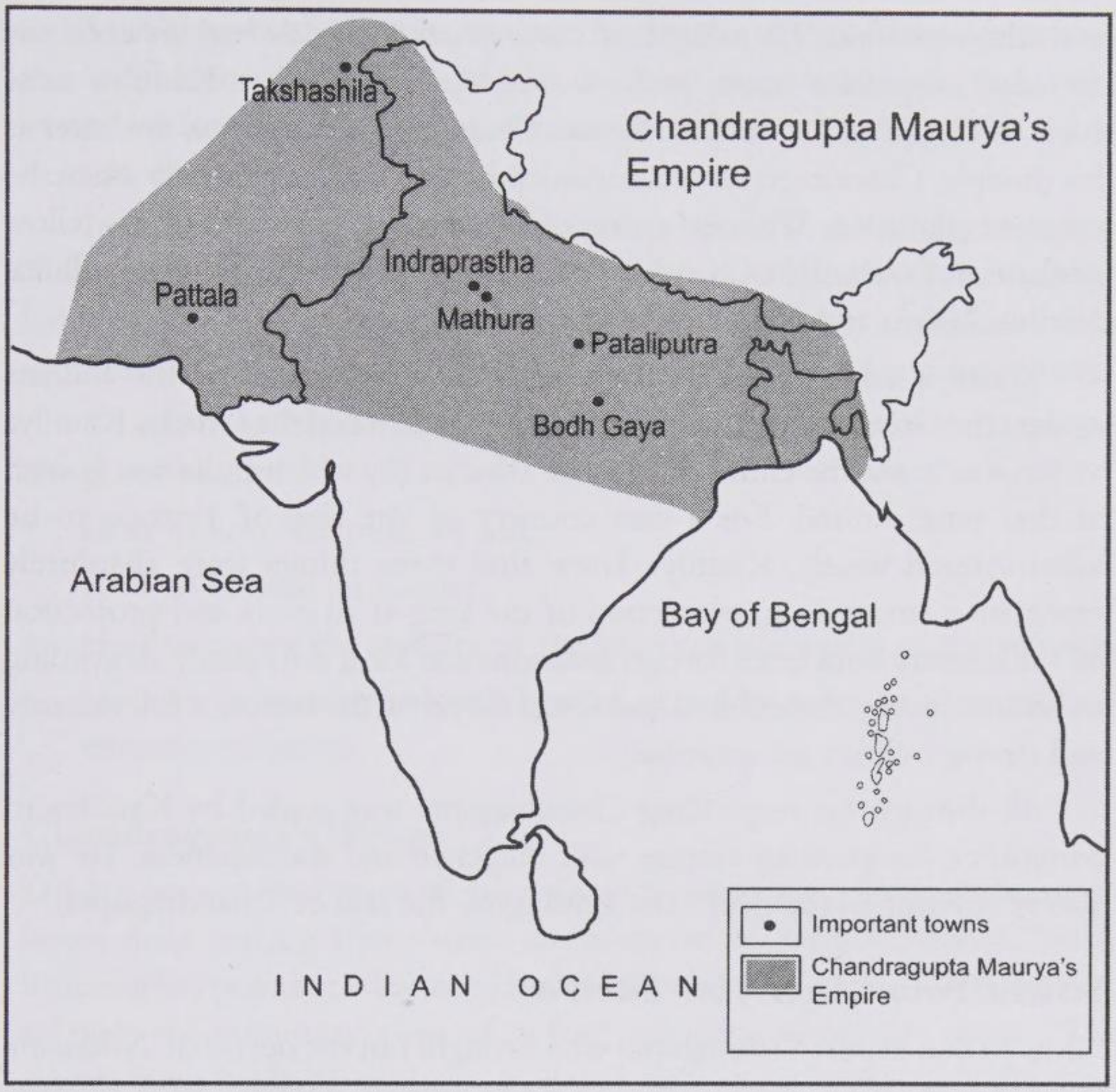
Chandragupta and his Advisor Kautilya

Chandragupta took control of Magadha with the help of a learned professor from Takshashila (also spelled Takshashila) University. Vishnugupta known to historians as Kautilya or Chanakya (after his father's name-Chanak) came to Pataliputra and took young Chandragupta under his care. He educated him in Takshashila University and secretly guided him to defeat the remaining Greek army, and then to take control of the vast Northwest Territory—once under the control of several small kingdoms between the river Indus and the river Satluj. After consolidation of these areas, he marched towards Pataliputra to defeat the last Nanda ruler of Magadha. Chandragupta took control of Magadha and became the king around 321 B.C. By now the whole of northern India was under his control. Beyond the Hindukush Mountains, after the death of Alexander, Seleucus was in charge of the Greek empire. He made one more effort to reconquer the territory of Punjab. But Chandragupta defeated him. In a cleverly negotiated deal, he not only got more parts of Afghanistan but also forced Seleucus to give him his daughter in marriage. After this, the Greeks and Chandragupta maintained friendly relations. They even exchanged ambassadors (*dootas*).

With his own courage and the diplomatic ability of Chanakya, Chandragupta established the Mauryan Dynasty which not only ruled vast territories of the subcontinent extending up to Afghanistan but also became known for a strong government and later on for an experiment in the government based on the principles of *Dharma*.

Civilizations are considered great not just because of the military ventures of the rulers but by the way the territories are governed and how the people lead their life. Another way to judge a ruler is to consider his contributions to the human civilization through the progress of ideas and the encouragement of learning.[1]

Later in the chapter, we will discuss how Chandragupta contributed to this phase of the march of civilization and to the well-being of his people.



The Story of Kautilya

Chanakya

Chanaka, Kautilya's father was a teacher in Magadha. His criticism of the cruelties of King Dhanananda and the discovery of the plunder of the royal treasury by the king annoyed the king. Chanaka was imprisoned, his wife died of starvation and the young son Vishnugupta left with a caravan headed for Takshashila. Vishnugupta studied there and later became a professor in Takshashila. He taught the principle of jurisprudence and political science. These lectures and lessons later came in the form of the most famous writing of that time—*Artha Sastra*. This treatise written on palm leaves has been recently discovered. The treatise is a combination of political philosophy (*Rajya Dharma)*, political policy (*Raj Niti*) embedded in the Vedic and post-Vedic literature, economics

and administration. *The principles of statecraft analyzed in the book are as relevant for today's sociopolitical systems as they were applicable then.* When Kautilya came back to Magadha, he accidentally met Chandragupta and took the latter as his disciple. Chandragupta accompanied Kautilya to Takshashila where he received education. With the vision of Kautilya and the help of his fellow students in Takshashila, Chandragupta freed the republics of Arutt, Valhika, Sindhu, Malois and Kshudrakas from the Greek rule.

Kautilya single-handedly engineered an uprising among the Indians against the Greek control and the local kings who aided the Greeks. Kautilya vision was to see the entire country of Bharata (by which India was known at that time) united. For a vast country of the size of Europe to be administered wisely, Kautilya knew that three things were absolutely essential: a strong king, protection of the king at all costs and protection of the country both from foreign invasions and local insurgency. According to him, to protect the cultural and social fabric of the nation, a full treasury and strong military are essential.

All through his reign King Chandragupta was guided by Kautilya to administer the growing empire with diligence and watchfulness. He was also an advisor to the next ruler Bindusara, the son of Chandragupta.

Salient Points in *Artha Sastra*

"Bow to that expert Vishnugupta who brought out the nectar of *Nitishastra* from the ocean of *Artha Sastra*."[2] *Kautilya* himself defines *Artha Sastra* as the science of managing land which gives wealth and sustenance to people. A proper policy should protect all of these. In the *Mahabharata* times, this science was known as *Dandaniti*—the science of administration of justice. About the Justice system, *Artha Sastra* says, "A king meting out unjust punishment is hated by the people as he terrorizes, while the one who is too lenient is held in contempt; whoever imposes just and deserved punishment is respected and honored."[3]

The treatise gives analytical details of a king's duties and the role of administration; here only a few important points and quotes are given.

About diplomacy and war, Kautilya says, "An archer with his arrow shot may or may not kill a person but skillful diplomacy of a wise man kills even those unknown." The well-known diplomatic means mentioned in the *Artha Sastra* are; conciliation (*sama*), exchange of gifts (*dama*), division and breakup of the opponents (*bheda*), and open war (*danda*). With the help of a vigilant police, the first two methods are to be used for the maintenance of internal security and law and order.

Several types of enemies are described in the treatise. Ways of winning the confidence of subjects of the defeated kings was considered very important for controlling the annexed territories. Kautilya studies this aspect in great detail.

In short, one can conclude that *Niti* discussed in the *Mahabharata*, the Vedic texts and, the other epics are all condensed in *Artha Sastra* but the latter provides many more detailed instructions as to the implementations of those policy objectives through a properly structured administration.

Thus, *Artha Sastra* focuses on four important aspects of the state and the government:

- How to keep the treasury full,
- How to control an empire,
- How to ensure the security of the kingdom and safety of the subjects,
- How to implement political theories or public policy in the actual administrative setup.

Chandragupta's Reign

During twenty four years of his reign, Chandragupta devoted almost 16 hours daily looking after various departments of his government. While different key points are discussed in the following paragraphs, it is interesting to note the summary view of a few historians about his reign. "The government made no pretence to democracy and was probably the most efficient that India had ever had."[4] Comparing this with the rule of Akbar, Vincent Smith further adds, "Akbar had nothing like it, and it may be doubted if any of the Ancient Greek cities were better organized." On the basis of the literary, pictorial and the material remains, he concludes that, "In the fourth and third centuries before Christ, the command of the Maurya monarch over luxuries of all kinds and skilled craftsmanship in all the manual arts was not inferior to that enjoyed by the Mughal emperors eighteen centuries later."

Role of the King

The monarch was limited by the power of the council which even in the absence of the king could initiate new laws, appoint government officials, and look after foreign affairs and finances. Megasthenese speaks of the "high character and wisdom of Chandragupta's councilors". The king was neither a despot nor an autocrat. The inner council of the king had four advisors—the Prime Minister, General of the Army, Royal Advisor (*Rajguru*)

and *Amatya*—the minister of interior, responsible for the numerous departments and agencies, each under a separate supervisor.

Capital City of Pataliputra

Pataliputra has been the capital of several kingdoms before the Mauryas. During the reign of Shishunagas, King Ajatshatru fortified village Pataligram to be the new capital of his growing kingdom. Pataliputra was ideally located near the confluence of rivers Ganga, Sone and Gandak.

It is said that once Lord Buddha passed by the site where the fortification was going on. He blessed the architects and their project but warned that the city would be plagued by problems arising from accidental fires, conspiracies (civil wars) and the floods.

During the reign of Chandragupta, the city was about 9 miles in length and 2 miles in width. The city was protected with fenced walls, ditches and metal gates. Houses and the palace were built of wood and were decorated elaborately. Gold leafing of pillars was common and the palace was decorated with gold plated vessels with animal, bird and floral motifs on them. The city was governed by thirty people divided in six groups. Havell in his *History of Aryan Rule in India* gives Megasthenese' account of the city thus, "The Greek ambassador ranked it as excelling the royal residences of Susa and Ecbatana, being surpassed only by those at Persepolis." Havell further adds, "In short Pataliputra in the fourth century B.C. seems to have been a thoroughly well-organized city and administered according to the best principles of social science."[5]

Welfare of the People

"Only a king who is wise, disciplined, devoted to just governance of the subjects and conscious of the welfare of all beings, will enjoy the earth unopposed."[6] The government attended to sanitation and public health. It maintained hospitals and relief stations for the poor. The food that was stored in the state warehouses was distributed in the famine years. It may be of interest to the students familiar with modern economic policies of the governments to compare it with those in the fourth century B.C. In the years of economic depression, the government sponsored many public works to provide employment to the poor.[7]

Economy and the Department of Navigation

While the economy has been discussed under different headings, here it may be added that though the subjects were free to pursue their occupations, they were watched by the officials of the state. Taxes were collected from

everybody. The rich were often asked to contribute to the state coffers. Government had a monopoly of state resources such as, forests, salt, mines, horses and elephants.

Since there was an extensive trade both inland and with other countries, it was essential for the government to provide roads, ports and bridges over the rivers. Water transportation was also regulated by the government.

There was a network of narrow dirt packed village roads, but the major highways and trade routes were wide—varying from 32 feet to 64 feet. "One of these imperial highways extended 1,200 miles from Pataliputra to the northwestern frontier"—a distance nearly equal to half the transcontinental spread of the United States.[8]

Along the roads there were wells, shady trees, police stations and the rest houses. There were marked pillars indicating directions and distance to major cities of the empires.

All trade was regulated by the state. Exporters and the importers of all products had to obtain permission on a stamped paper. This was done by paying a fee. This practice is more like the modern day system of export and import duties.

Society and Life of the People

"This is a great thing in India that all the inhabitants are free, not a single Indian being a slave."[9] It is written in the *Artha Sastra* that among the *Varna* system there is no slavery.

As previously mentioned, Greek historians and visitors to India unanimously agree that there was no slavery. Society however was organized along occupational lines. Teachers and peasants were exempt from military duty; as a result, the farmers tilled the land in peace and security whether the country was at war or not.[10] According to these writers, people were divided in seven groups—philosophers (Brahmin and Buddhist religious teachers), husbandmen, shepherds, artisans, soldiers, civil officers and ministers.

About men and morals Megasthenese said,

> "The inhabitants of India have abundant means of subsistence and farming and famine never visits the country. The country is very rich in minerals and precious stones and the Indians are fond of finery and ornaments. But otherwise they lead plain lives. They are honest and truthful, and theft is of rare occurrence."

Espionage and People's Rights

The use of spies (known as *Guptcharas*) has been an ancient Indian practice. Indian rulers as far back as King Rama used spies to find out honest opinions of the people about the king and his advisors. During the subsequent long rule of the kings from both Iksvaku and Kuru dynasties, a large network of spies acting as eyes and ears of the kings protected the kingdom from the foreign invasions and insurgencies.[11] During the reign of the Nandas and the Mauryas, spies were used by various departments of the government and these spies often worked in disguise. At all the city gates, there was a thorough check on the people immigrating and emigrating from Pataliputra. Since people carried documents and identity papers obtained from other kingdoms, one can conclude that such documentation was insisted upon in other kingdoms as well. The newcomers arriving in the city had to get their documents stamped by paying a nominal fee. The same rule applied to those who left the city.

Government and Administration

Chandragupta had a very well-organized bureaucratic system which was almost like the modern bureaucracies. There were different departments for various affairs—departments for revenue, customs, border protection, excise, mines, agriculture, warehouses, treasury, navigation and many more. There was a department to regulate prices and ensure the accuracy of the weights and measures. Each department had well-defined duties. The king personally made sure that he was informed about all the details on a regular basis. Many European historians of the last century were amazed by the accounts of Chandragupta's reign as depicted by Megasthenese and other Greek writers of those ancient times. Students may remember that Megasthenese was an ambassador of Seleucus—the viceroy of Syria. More detailed accounts of the Mauryan administration and government became available when the manuscript of *Artha Sastra* was in 1905 by Rudrapatnam Shamasastry, a librarian in Mysore Oriental Library. It was later translated in the English language.

> "The perfection of the arrangements thus indicated is astonishing, even when exhibited in outline. Examination of the departmental details increases our wonder that such an organization could have been planned and efficiently operated in India in 300 B.C."[12]

The role played by Chanakya was not highlighted by these writers. Most of the details are still pouring in as parts of the manuscript of *Artha Sastra* are discovered, analyzed and translated.

Military Might and Defense

As the consolidation of the empire continued, the traces of Alexander's victory almost disappeared and the Lichchavis and the Kaikeyas gained power in the border kingdoms to be absorbed in the Mauryan Empire later on. There are several accounts of the size of Mauryan army which consisted of admiralty, infantry, cavalry, chariots and elephants.

Law and Order and Justice[13]

Kautilya's book *Artha Sastra* is an excellent book on jurisprudence and maintenance of law and order.[14] Judiciary was a hierarchy. Most of the cases were decided by the local *Panchayats* (the village council of five headmen or elders). Each town, district and province had a court and the apex court was the royal council in the city of Pataliputra. Penalties were severe but the last appeal could be made to the king. Such elaborate participation in the economic and political life of the people requires bureaucratic efficiency and tight supervision of the government agencies.

Story of Prime Minister, Vararuchi

Vararuchi—alumni of Takshashila University was the Prime Minister at the time of the coup that toppled Dhanananda. It is said that before his retirement, he started an investigation of all the branches of the army. He asked to verify the accounts of each department for the preceding three years and documented the irregularities in the purchase, inspection and sale of the substandard weapons, chariots, horses, military equipment and the elephants. Many people wrongly assume that the system covering accounting and auditing is the legacy of the British Empire. Vararuchi lived 2,100 years before the British rule in India.

The Story of Takshashila University

There were several cities in the Mauryan Empire. Takshashila was the oldest of these cities. Situated on the main road to Asia, it was a university town and a military garrison as well as the capital of the kingdom of Gandhara. This kingdom acted as a buffer between India and the Central Asian tribes. Takshashila city was known for being the center of trade and learning. In this university, renowned teachers taught a variety of subjects—mathematics, medicine, philosophy, jurisprudence, political philosophy, astronomy, economics, policy, administration and, religion. According to Will Durant, "Students flocked to Takshashila as in the Middle Ages they flocked to Paris; there all the arts and sciences could be studied under eminent professors, and the medical school especially was held in high repute throughout the Oriental world."

As mentioned earlier, Panini, famous for writing the Grammar of Sanskrit language was a student of this renowned university some two centuries prior to Chanakya. Vararuchi, a grammarian, was also a student of this university. Kautilya (Vishnugupta) once a student there became a teacher of political science in this university.

In the 4th century B.C., the students from the university viewed each other not as competitors hailing from different kingdoms but more as fraternity for the protection of Bharat and its culture. It is also said that there were always a few foreign students there. No wonder that after the retreat of Alexander, this student body was instrumental in insurgency against Alexander's *satraps* but also against those kings who supported him. It is in the classrooms of Takshashila University that the concept of a sovereign nation state germinated. Students may remember that the same idea was conceived in Europe, 1,900 years later.

The University later became famous for the Buddhist studies and had the largest library at that time. It remained a reputed place of learning till it was ravaged by an earthquake. It was renovated but was destroyed by new hordes of invaders, this time from Central Asia. It is said that through intricate tunnels, the Buddhist monks were able to escape with rare manuscripts and found shelter in Buddhist China.

Thus, while India ravaged by continuous invasions and other natural disasters could not preserve the ancient books about Hinduism and Buddhism, China and the other neighboring countries preserved these.

The Role of the Universities in Creating Cultural Unity in India

The young students from various kingdoms of India studied together in these universities. Among other subjects, they learned about Vedic Culture and *Dharma* as applied to various sections of society. These students developed the respect for their common culture which always needed protection from internal as well as external threats. Many of them learned to place the integrity of the nation above their petty political interests and ambitions. When these students met in later life they acted as members of an alumni.

King Asoka's Reign

Asoka[15] succeeded his father Bindusara. He inherited a vast empire extending up to the southern parts except Tamilkam (present day Tamil Nadu) and Kalinga (present day Odisha). He conquered many kingdoms

and ruled his kingdom much the same way as his father and grandfather did. His last conquest was that of Kalinga in the east. It is said that seeing the dead bodies of so many soldiers, the King vowed to stop wars and instead spread principles of good government and *Dharma*—duties and righteous conduct necessary for mankind. He diverted his attention towards the building of temples, Buddhist *Stupa*s and pillars with the inscription of moral laws on these.

King Asoka

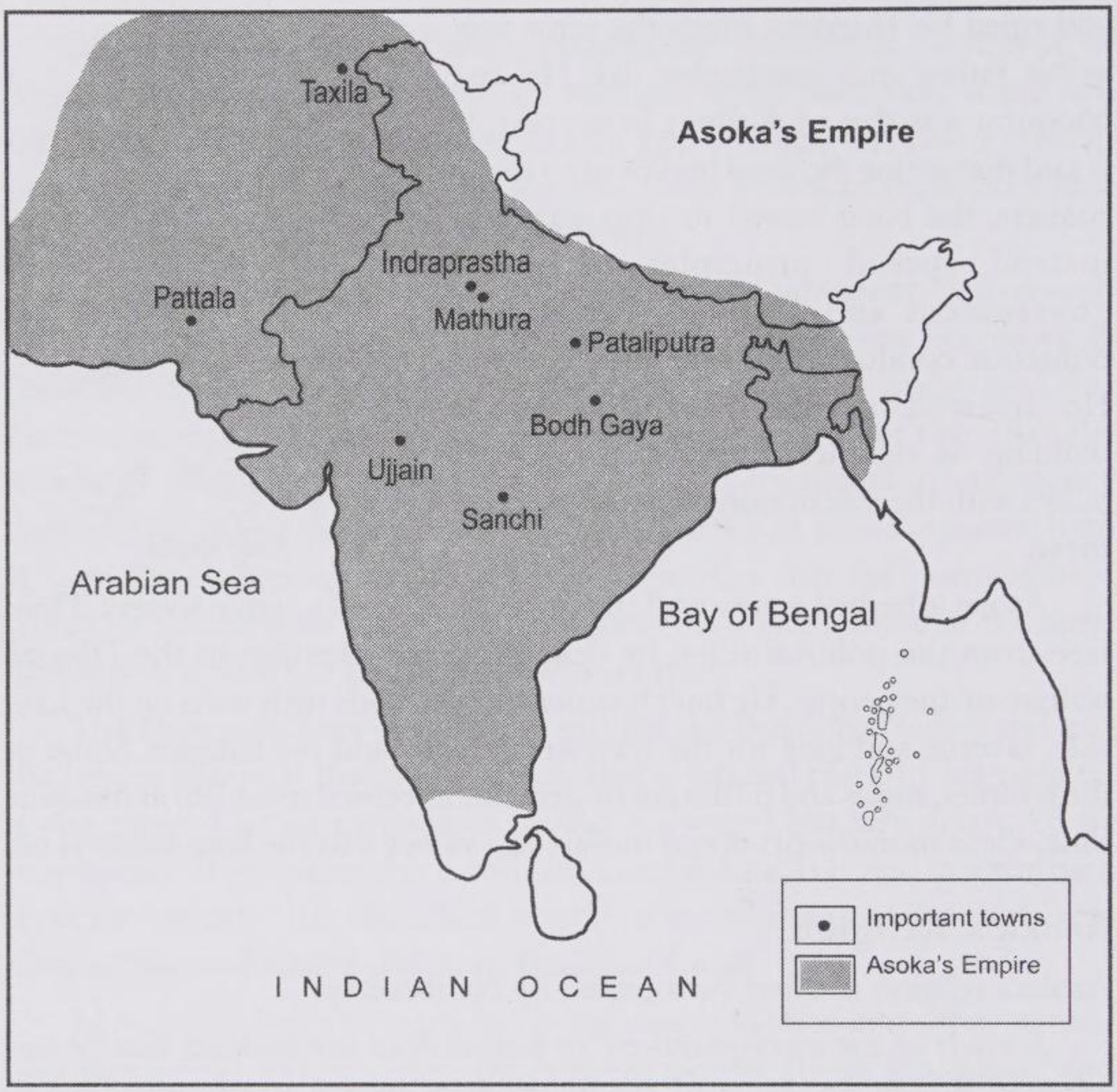
Asoka inherited a very well run government and a stable society. Thus, free from the political fears, he devoted more attention to the *Dharmic* welfare of the people. He built hospitals, good roads with wells on the road side, taverns and inns for the travelers, *viharas*[16] and the temples. Some of the temples, *stupa*s and pillars are of great architectural merit but at the same time, these monuments reveal morals and values that the king stressed on.

Asoka's Religion

Asoka's religion is often surrounded by controversy.

A study of the inscriptions of his period does not indicate that he had adopted Buddhism. Most of his inscriptions preach to observe *Dharma* and donate to 'Brahmins and *Shramans*'. Asoka showed great respect for Vedic principles and the learned Brahmins. Besides, the word *Shraman* does not refer to Buddhists alone. It refers to six other schools of Shramanic traditions including the traditions of the Jains and the Ajivakas. Asoka's inscriptions are in Prakrit language, not in Pali—the language of the Buddhists. Asoka has used the word '*Dhamma*' everywhere in his inscriptions which is a Prakrit word. Though there is reference to his conversion in some of the Buddhist works, there is no archeological proof of his conversion.

Asoka's pillar is made of polished sandstone and shows four lions on the top symbolizing harmony, tolerance and coexistence among the people of different faiths. Today the Asokan Lion Capital is the official emblem of the Indian government.[17] Several of the *stupas* built during his time are great tourist attractions. Notable among these are the *Viharas*[18] at Sarnath where a temple exists beside them.



Inscriptions and the Rock Edicts

In the Indian tradition, the *Dharma* of a king is to protect and support all his people like a father protects all his children. Thus, he must respect all religions. Literary works of the period support this point. This and other principles of morality and righteous conduct are found written in simple local languages. These edits have been discovered almost in all parts of India. Fourteen rock edits are found in places as distant from each other as Girinar in Gujarat, Mansehra and Shabhazgarhi in Punjab, Dhauli and Jaugada in Odisha. The king stressed nonviolence, tolerance and respect for all sects. Most of them have words such as *Raja*, *Devaanaam Priya* written in place of Asoka's name. The morals and messages are not Buddhist messages; they are the general tenets of righteous conduct as enshrined in *Vedic Dharma.*

Let us review some examples. Here are some of the edicts and inscriptions: Asoka's edict 7:

> 'I have also ordered that they should be occupied with the affairs of the Brahmins and the *Ajivikas*. I have ordered that they be occupied with the *Niganthas*. In fact, I have ordered that different *Mahamatras*[19] be occupied with the particular affairs of all different religions. And my *Dhamma Mahamatyas* likewise are occupied with these and other religions.'

Rock Edict 12 says that the King gives respect to all sects, whether ascetics or householders by giving gifts. Besides emphasizing the principle of tolerance and respect for all religions, he also wants his people to show restraint of speech and not indulge in acts of depreciating any other belief. This way people increase the glory of their own sect.

The Second Pillar Edict says that people should follow the law of *Dharma* and piety and which enjoins on people to show compassion, liberalism, truthfulness and purity.

Asoka sent messengers to several different countries—Ceylon, Syria, Greece, Egypt, Japan, China, Mongolia to spread these principles of morality and *Dharma*. Even after his death, the messengers kept up his work. His daughter Charumati went to Nepal to spread the main tenets of *Dharma*.[20] Asoka also visited Lumbini where Buddha was born. This is the place also visited by King Rama several millennia back on his way to the forests near Tapovan. There were several Hindu temples at that place.

The principles he advocated, he practiced as well. He was always ready to meet his people or advisors. This was truly a democratic rule. The principle of nonviolence was used as statecraft for the first time. Pataliputra, his capital remained a major attraction for all types of religious pilgrims.

Coins Tell us Some Stories

Panchala "Mitra" coins have been found at Pataliputra and names ending with "Mitra" in inscriptions at Bodh Gaya. All these discoveries substantiate the *Yuga Purana*'s account of a joint expedition of Panchalas and *Janapada* of Mathura trying to defeat the weakening Mauryan Empire under King Shalishuka Maurya around 200 B.C. Soon thereafter, the Maurya dynasty was extinguished by Pushyamitra.[21]

Literary Contributions of the Period

During this period many of the *Puranas* were written or updated. Puranas are the accounts of rulers of various dynasties and their achievements. As mentioned earlier, *Puranas* are a major source for tracing the genealogies of different dynasties.

Around the same time, *Chhanda Sutra*—the science of metric verses by Pingla was written. This book is now considered a major help in the correct understanding of the Vedas.

Later, during the reign of Chandragupta Maurya, *Artha Sastra* (The science of Economics) was completed by Chanakya. Even though, state craft and state policy were assigned separate chapters in the *Mahabharata*, this is the first book ever written specifically on the subject.[22]

Summary

Magadha remained the prosperous and most powerful of the north and central Indian kingdoms for more than a millennium. Chanakya helped Chandragupta Maurya in building the empire. He made sure that the administration was run efficiently and smoothly. He laid down foreign policy guidelines for the kings and his courtiers to follow. Above all he helped the young king in giving stability and security to society. All of the practical measures he took, he wrote down in his book *Artha Sastra*.

Magadha during Maurya rule witnessed literature, sculpture, religions, arts and economy flourish. Megasthenese—a Greek visitor noted some of the highlights of a rich culture, stable society and a prosperous country in his journal *Indica*. Some of these highlights are given in the fragments of *Indica* quoted by other Greek writer of those times.

Magadha remained the center of cultural renaissance and nucleus of political power. Around the modern provinces of Uttar Pradesh, Bihar, parts of Odisha, Madhya Pradesh and Bengal, the kingdom Magadha expanded into a powerful empire.

Four of the seven towns of pilgrimage are located here. These towns are Ayodhya (the birthplace of King Rama), Mathura (the birthplace of Krishna and the site of the 2nd Jaina Council in 298 A.D.), Haridwar (gateway to the holy Himalayan shrines of Badrinath and Kedarnath) and Banaras—holiest city for Hindus and the place where the Buddha delivered his first sermon in 528 B.C. Kusinara (near Gorakhpur) is the place where the Buddha attained *nirvana* in 483 B.C. Prayag city (Allahabad) is on the confluence of three rivers Ganga, Yamuna and Sarasvati. Bihar, the central part of the kingdom of Magadha (including the state of Jharkhand) has been the hub of cultural and social renaissance. It was also the seat of several powerful empires. "It is also a religiously very special land for all four religions born on South Asian soil. For Hinduism, it is the land of King Janak of *Ramayana* fame. It is the land in which the city of Gaya where the ultimate *Shraddha*

ceremonies are performed, is located. For Jainism, it is the land where Mt. Parasnath is located which was where the 23rd Tirthankara, Parshvanatha, attained *nirvana* in 738 B.C. The 24th Tirthankara, Mahavira, was born in Vaisali in 599 B.C. and attained *nirvana* at Pavapuri in 527 B.C. Both of these towns are located in this land. The 1st Jaina Council was held at Pataliputra in 367 B.C. For Buddhism, Bihar is the state where the religion blossomed. It is the area in which Bodh Gaya, the place of the Enlightenment of the Buddha took place in 528 B.C. is located. Rajagrha (modern Rajgir), the site of the first Buddhist Council in 483 B.C. which took place under the patronage of King Ajatshatru, is located here. The Buddhist Scriptures were put together during this council. Vaisali, the site of the 2nd Buddhist Council in 386 B.C. is located here. Pataliputra, the capital city of Emperor Asoka under whose patronage the 3rd Buddhist Council was convened in 247 B.C. is located here. Nalanda University was in this territory."[23]

Concepts to Understand

1. Magadha became the most important centralized power after the *Mahabharata* War.
2. Mauryas ruled a vast empire for over three centuries.
3. Chandragupta consolidated Magadha into an empire.
4. Asoka not only expanded the empire but contributed to the introduction of nonviolence into the political affairs of the country. After the battle of Kalinga, he vowed to avoid wars.
5. Chanakya was the guide and advisor of Chandragupta and his successor Bindusara.
6. The king and his advisors looked after every detail of the royal policies and policy implementation.
7. When people have no fear from internal and external enemies, they make progress.

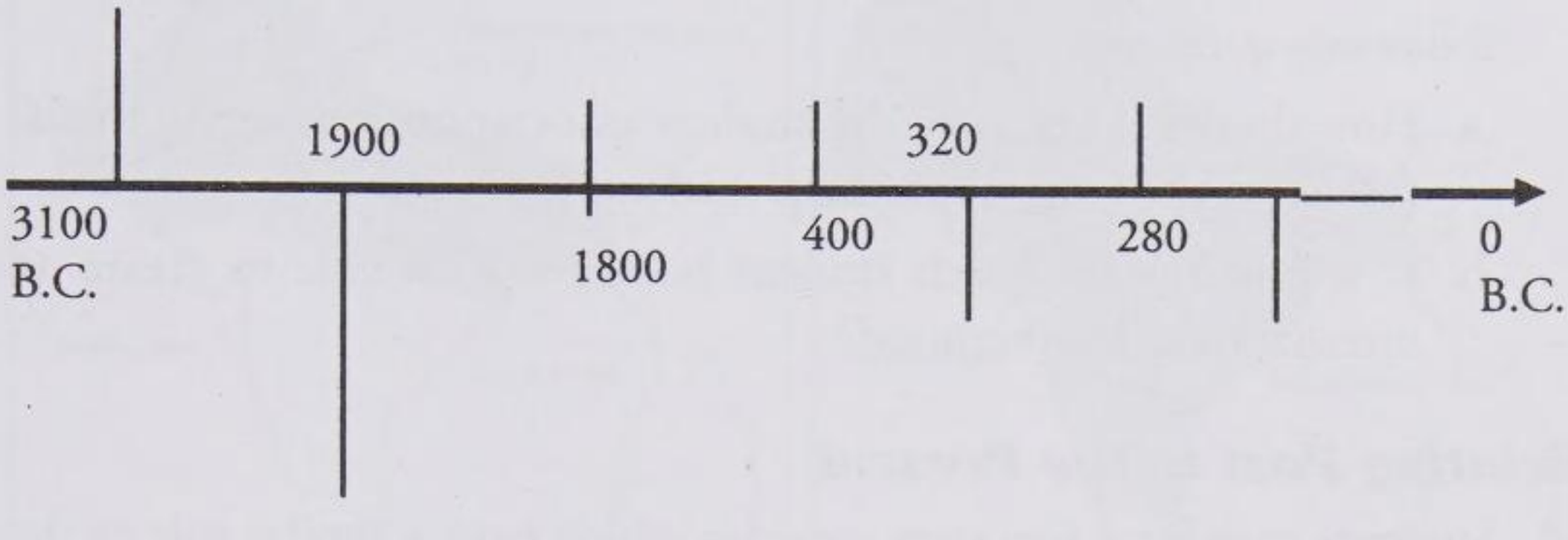
Questions

1. Students may watch a few episodes of the TV serial Chanakya (with English subtitles) and describe the life of the people in those days.
2. How did Kautilya govern such a large kingdom?
3. Describe and compare some of the highlights of Chandragupta's administration with administrative structures of governments today.

4. What were the principles of good governance which were followed by Chandragupta? What is the message for the modern day rulers?
5. How does the principle of nonviolence as a government policy affect the people of a country? How does it affect the country as a whole?
6. What happened to Asoka's empire after his death?
7. How do rock edicts shed light on the history of that period?
8. Many scholars believe that Buddhist messengers carried principles of Ethics and morality to far away places and later these were absorbed in Christianity, do you agree with this?[24] Students may review the chapter on Buddhism.
9. Why did the vast empire of Asoka disintegrate?
10. Students may go over the chapters on Hinduism and Buddhism and see if one can conjecture that Asoka converted to Buddhism or tried to spread it at the expense of other faith traditions. Can we label Asoka's activities as evangelization or conversion as the practice is known today?
11. With reference to Pataliputra, Havell said, that it was a "thoroughly well-organized city and administered according to the best principles of social science."
    a. What are the best principles described in *Artha Sastra*? Discuss at least four, based on your study of the chapter.
    b. Name one modern country where these principles are part of the public policy and administration.
12. 'The rich were often asked to contribute to the state coffers.' Is this expectation a part of the modern principles of taxation? When the rate of income tax goes up for the people in higher income groups, what is the name of this type of taxation?
13. Based on the quotes from various historians and foreign visitors given in the chapter, discuss if for 2,500 years, India was primitive, backward or barbaric—a myth often promoted by a few writers.
14. Is Asoka's conversion to Buddhism a myth?

Enrichment Activity

1. Use the following blank timeline to indicate the empires and kingdoms in Europe and Central Asia in the corresponding time frame. For specificity, it is a good idea to mention the names of rulers of various regions and kingdoms. After completing the timeline, students may describe the extent of the empires.



2. How did Asoka's policies and *Dharma* make the nation weak? Study the following paragraph and discuss three aspects of *Dharma* which should not be a part of the royal duties (*Rajya Dharma*). Which duties of a king did Asoka ignore?
3. Read the following paragraph and then write which other country/ leader follows the principle of nonviolence in political life? Did it help the country and its citizens become safe and secure? Could the country retain its territorial integrity?

> "The Pandavas who upheld *Dharma* as long as possible, even in the face of treachery. The main message of the *Mahabharata* is that *Dharma* should be retained only against counterparts who practice *Dharma* themselves. Break the 'law' if you have to. In the face of monsters and criminals, it is sheer folly to uphold *Dharma* while your enemies merrily butcher your wives and children. Pandavas should have broken the law very long back in the saga, when they realized their 'cousins' were bent on drowning and burning them. Instead of that, they swallowed exile, banishment, treachery, penury, starvation, humiliation, and the spectacle of their wife nearly being disrobed. Did it help them? Could they avert the great war in the end? *Dharma* is a concept only to be upheld in times of peace."[25]

Critical Thinking Activity

1. Discuss the effects of some people/nations that practiced nonviolence in the last 150 years. Was nonviolence an effective tool for social change?
2. Students may be divided in groups to discuss the good and weak aspect of nonviolence as a basis of foreign policy. They may also point out if the USA can follow this type of foreign policy in its dealings with other countries?
3. Students may think of modern universities and the bond among the

alumni as exemplified at Takshashila University, and answer the following questions:

a. How do the alumni and the student associations belonging to different parts of the world help students and nations?
b. Is it possible that such student bodies will be able to create an international brotherhood?

Relating Past to the Present

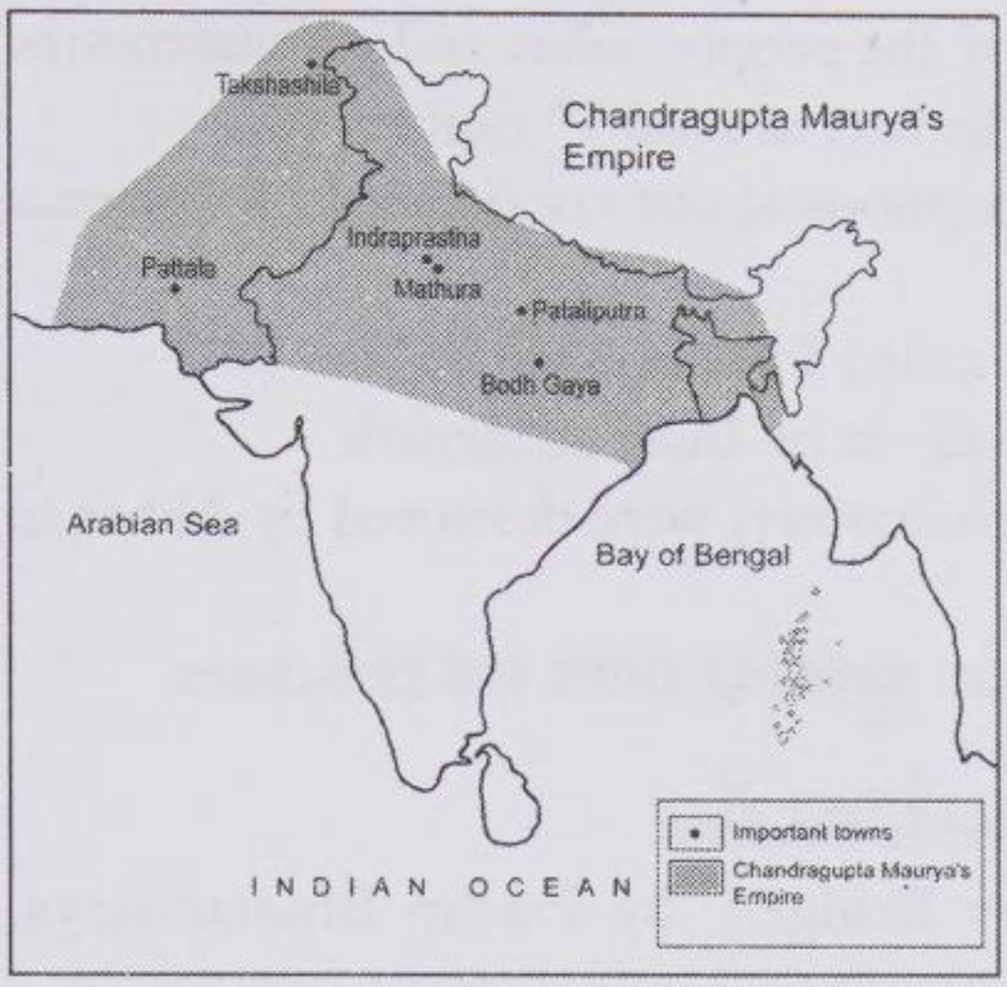
1. Students may list a few state agencies which have a similar role as the departments of Chandragupta's empire. Why are the government controls needed?
2. Students may discuss if such a government would be totally free from the elements of autocracy and high-handedness by the officials. Again, comparison with some of the nations of the world can reveal striking similarities with the successfully administered empires of the past, most notably that of Chandragupta Maurya.
3. Students may discuss the following facts from the chapter:
   - 'Spies were used by the various departments of the government and these spies often worked in disguise.'
   - 'At all the city gates, there was a thorough check on the people immigrating and emigrating from Pataliputra.'
   - 'Since people carried documents and identity papers obtained from other kingdoms, one can conclude that such documentation was insisted on in other kingdoms as well.'
   - 'Newcomers arriving in the city had to get their documents stamped by paying a nominal fee.'

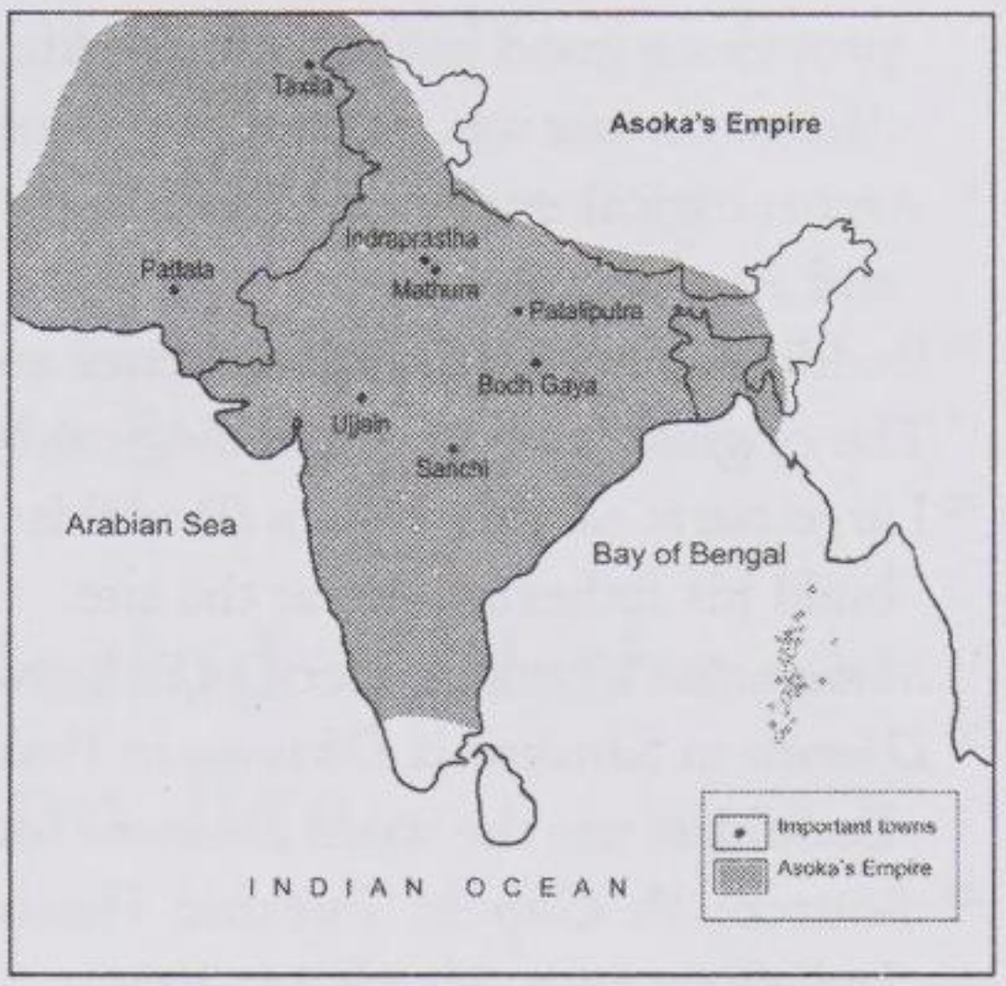
Students may link these practices with those followed by the modern governments. Students may identify two departments in their country and evaluate their need from the point of maintenance of law and order and safety and security of the people. Do you think the activities of these departments violate civil liberties?

Map Study

- Study the inset map and compare it with the map showing the empire of Chandragupta Maurya. Which territories did Asoka add to his empire?

Source





- *Artha Sastra* by Kautilya
- *Mudrarakshasa* by Vishakhadatta, 7th century A.D.
- Works of Vincent Smith, E.B. Havell, Will Durant
- Jaina and Buddhist literature,
- Asoka's Rock edicts,
- Accounts of Megasthenese from his book *Indica*, as quoted by various Greek writers

Endnotes

[1] The glory of the reign of Chandragupta and the luxuries available to the people were described by Megasthenese - an ambassador of Seleucus- King of Syria. Will Durant's *The Story of Civilization*, vol.1 gives an elaborate account of this.

[2] *Niti Sastra* by Kamandaka

[3] *Artha Sastra* 1.4, 7-10

[4] Vincent Smith, *Oxford History*

[5] E.B. Havell, *History of Aryan Rule in India*

[6] Kautilya, *Artha Sastra*, 1.5.17

[7] Source: E.B. Havell

[8] Source: Will Durant quoting Havell. Megasthenese 'accounts are used for reconstructing details about this great empire

[9] *Anabasis of Alexander*, and *Indica* by Arrian, Greek historian who used quotes from Megasthenese

[10] Source: Strabo, *Geography*

[11] Students may read by Will Durant vol. 1, ch. 16, pp. 441-45

[12] ibid.

[13] Sources for these topics, Greek historians, European historians and *The Story of Indian History and Culture* vol. 4, Bhishma Publications

[14] Besides *Artha Sastra*, the most famous literary work is *Mudrarakshasa* which

provides a good insight into the life of the people, rulers and administrators. *Mudrarakshasa* was written by Vishakhadatta around 7th century A.D.

[15] Archeological evidence based on inscriptions about coexistence of *Dharma*s and Asoka's rule

[16] Buddhist temples and monasteries are called *Vihara*s.

[17] The original is in the Archeological Museum of India at Sarnath

[18] Large parts of this *Vihara* (Buddhist monastery) were destroyed by Akbar to build his father's tomb at the site.

[19] *Mahamatras* were ministers; *Ajivikas* were traveling saints and preachers.

[20] *Dharma* in Sanskrit is *Dhamma* in Prakrit
Buddhists use the word *Dhamma* for their *Dharma.*

[21] Source: 'A Gap in Puranic History Bridged' by Pradip Bhattacharya, IndiaNest.com, March 14, 2004

[22] *Kautilya's Artha Sastra* by Dr Roger Boesche, Professor of Politics at Stanford University

[23] Source: B.N. Heber's article, 'Old Uttar Pradesh and Old Bihar: two religiously very special states of the Indian Union'

[24] Students may refer to *The Story of Civilization,* vol. 1, chapter 16 by Will Durant.

[25] Dev Mukherji posted on Hinducivilization@yahoogroups.com, June, 06

Chapter 21

Intervening Period and the Kushana Era

Towards the end of the Maurya dynasty, kingdoms in the border areas of the subcontinent asserted their independence. At the same time as the new powers were trying to consolidate smaller kingdoms and *Janapadas* in central India, Satvahanas gained territories and strength in what is now Gujarat and Maharashtra thus filling the gaps in power. It was a time of confusion. Some strong ruler or rulers were needed for the fusion of power to take place in central India. In the emerging scenario, three powers—Kushanas, Vikramaditya Sakari, and Shungas followed by Kanvas established kingdoms with their capitals at Mathura, Ujjain and Pataliputra respectively. Based on the literary evidence and inscriptions on the rock edicts, one can piece together history of the intervening period from 185 B.C. to the rise of the Kushana Empire. It must be remembered that even when the Mauryas and later the Kushanas were able to create powerful empires by consolidating several kingdoms, there were always other powers ruling in the eastern parts of India and the south of the Vindhya Mountains.[1]

Together the Shungas and the Kanvas ruled Magadha from 185 B.C. to 28 B.C.

Shunga Dynasty (184-72 B.C.)

Pushyamitra Shunga took over the throne after killing the last Mauryan ruler, Brhadratha, under whom he was the army chief. He was disgusted with his ruler's policy of the so-called nonviolence that stood in the way of his leading a campaign against the alien invaders who had occupied a big chunk of North-Western India. After that he fought against the invaders and pushed them beyond the natural[2] northwestern boundary of the country and performed *Ashvamedha Yajna* on the bank of River Indus

(*Sindhu*). He also performed a grand *Ashvamedha Yajna* at Pataliputra (Patna), the capital city. We find a mention of these *Yajna*s in a rock-edict at Ayodhya. Thus, he brought in focus the importance of royal duties and the priorities for the protection of the borders. He also implemented the royal policies emphasized in Vedic-*Dharma*. There is a detailed account of his son, Agnimitra's life in Kalidasa's drama *Malavikagnimitram*.

Important Shunga Kings Ruling Magadha from Pataliputra[3]

- Pushyamitra (184-148 B.C.)
- Agnimitra (was a viceroy at Vidisa during the reign of his father)
- Vasujyestha/Sujyestha (148-141 B.C.)
- Vasumitra (141-131 B.C.)
- Odraka (131-129 B.C.)
- Pulindaka (129-126 B.C.)
- Ghosa (126-123 B.C.)
- Vajramitra (123-114 B.C.)
- Bhagavata (114-82 B.C.)
- Devabhuti (82-72 B.C.)

Important Contributions in the Field of Literature and Architecture

It is believed that during this period, Patanjali, the grammarian, wrote his famous *Mahabhashya*. In this book he not only describes the *Yajna*s performed by Pushyamitra but also the political and social conditions of those times. Patanjali wrote the famous *Yoga Sutra* which is still followed by the teachers and practitioners of Yoga all over the world. The teachers and Brahmins were recognized for their intellectual qualities. *Gurukula* style education continued. Patanjali also refers to the guilds of five types of artisans—metal workers, masons, architects, cooks and confectioners. Trade and farming were conducted in an organized way and there was all round material prosperity during the times of Shunga dynasty.

The highlight of the Shunga art was the creation of railings and *toranas* (gateways) for Sanchi and Vidisa *stupas*. This proves that though the rulers were followers of the *Vedic Dharma*, they patronized all other religions and maintained the sacred places belonging to the Buddhists and the Jains. Besides these, the artistic activity kept flourishing in Mathura and Bodhgaya.

Kanva Kings

- Vasudeva (72-63 B.C.)
- Bhumimitra (63-49 B.C.)
- Narayana (49-37 B.C.)
- Susarman (37-27 B.C.)

These two dynasties ruled from Magadha for over 158 years. As the Kushanas kept moving eastward, Kanavas became powerless. The seat of power shifted from Pataliputra to Ujjain (under King Vikramaditya) and then to Mathura and Peshawar under the Kushanas.

Kushana period began around 50 B.C. and their rule continued till 220 A.D. At Ujjain, another drama was unfolding. There was a constant tussle for power between the Sakas and Vikramaditya.[4] Vikramaditya regained his ancestral kingdom in Ujjain by expelling the Saka tribe after 9 years of their rule (66-57 B.C.).[5] When he returned to his capital in time for the *Deepawali* celebrations, he introduced a new era known as *Vikram Samvat* or *Malawa Samvat* in 57 B.C. to commemorate his victory over the Sakas. The *Vikram Samvat* begins on *Karthik Shukla prathama* (around October-November).[6] He reigned for 60 years and his four successors together reigned for 75 years. Thus, the total period of this dynasty was about 135 years.

Vikramaditya's son, Devabhakta ruled for less than 10 years and was either overthrown or killed by the Sakas. His son, Shalivahan defeated the Sakas and created a new era called Shalivahan Saka Era in 78 A.D. Thus, one can see there was an ongoing tussle between the Sakas and the descendents of Vikramaditya in the territory around Ujjain.

Despite internecine warfare and the absence of a strong central ruler, economy thrived, trade continued and Indian culture continued to impact neighboring countries in the east, south and the north west. Large ships were used for the transportation of goods and people from one place to another. Various Buddhist *Jatakas* mention large ships that carried as many as 600 people, traveled across the seas. These ships used the port of Broach – in modern day Maharashtra. According to *Supparaka Jataka* a merchant ship carrying 600 passengers with sea going merchants started from Broach and sailed across the 6 seas for about 4 months.[7]

Similar references are given in the other *Jatakas* such as, *Samuddavanija Jataka* and *Mahajanaka Jataka*. The Jaina sources mention three different categories of trading cities – there were market towns, sea ports and towns

where trade was carried on both by land and sea. Besides, there were towns exclusively inhabited by traders. According to G.P. Singh, "Putabhedana was such a trade emporium where the seal of goods coming from different parts of the country were broken."[8]

Because of the existence of *Varna Ashrama*,[9] economic life and agriculture were rarely affected by the conflicts between various kingdoms.

Kushana Period (50 B.C. to 220 A.D.)

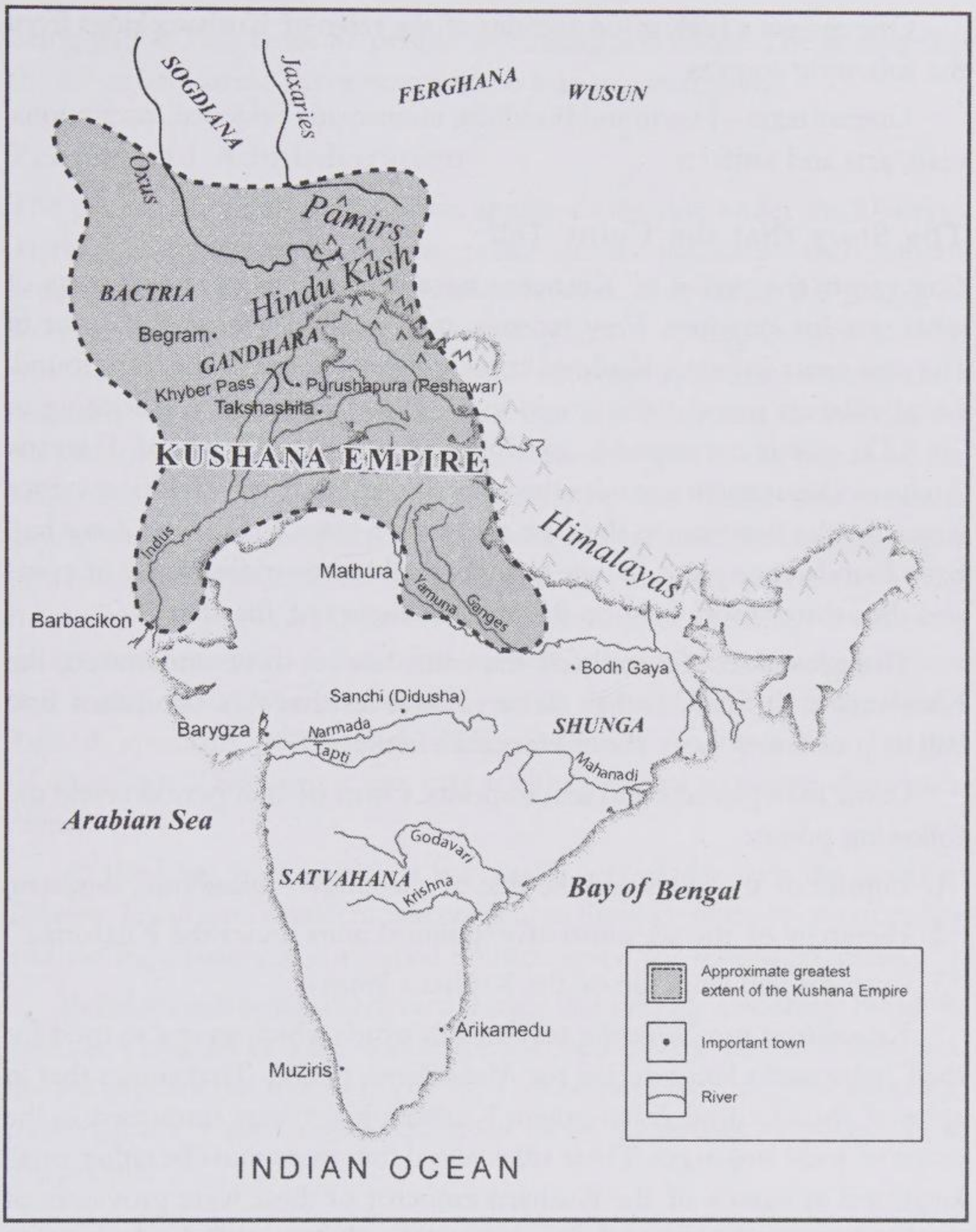
Kushanas were a branch of the nomadic Yeuhchi tribe of China. They were inhabitants of the regions of China and Central Asia beyond the Indian borders. It is believed that they were Mongolian Buddhists.

After defeating Bactria and Parthia, the Kushanas under Kujala conquered Ki-pin and Kabul and became the complete master of the Indian borderland in the northwest.

Kujala became the first king of the Kushanas and was known as Kadphises I. He was a great warrior. His son Kadphises II conquered the northwestern region of India. He defeated Saka *satraps* in the northwest. Kanishka was the most famous of the kings of Kushana dynasty. He became the king around 120 A.D. His empire consisted of Afghanistan, Kashmir, Punjab, Bactrian kingdoms, Nepal, the Gangetic valley, Tashkent, and Turkistan. He had two capitals, one at Peshawar in the present day Pakistan and the other at Mathura in Uttar Pradesh. Recently a horde of seals and coins have been found in Nepal bearing Kanishka's name.[10]

During the reign of Huvishka, Kanishka's grandson, Mathura became the center of Kushana Empire. Many monuments were erected during his reign. The last great king of Kushanas was Vasudev I. There were five more rulers after him. However, after Vasudev I, the decline of the Kushanas began as they were overthrown by the Sassanians of Persia in the northwest and by the Guptas from the Gangetic valley. The rule of the Kushanas ended almost at the same time as the decline that of the Satvahanas began in the south.

Several artifacts and coins belonging to the Kushana period found recently in Nepal and the present state of Haryana[11] show that the Kushana kingdom under Kanishka was up to Nepal and Mathura in the present day Uttar Pradesh. Since Mathura was the Kushana capital, it is likely that the empire extended up to Kashi and the western parts of Bihar.



South of the dotted line is the southern part of India, which had several kingdoms.[12] *Northern parts of India constituted Kanishka's empire which extended to Central Asia.*

One can get a fairly good account of the reign of Kushana kings from the following sources:

Literary texts – Hindu and Buddhist, numismatic evidence, inscriptions, seals, arts and artifacts

The Story that the Coins Tell

Coins from the period of Kushanas have been found in several parts of what was his kingdom. Very recently, in a small village of Akbarpur in Haryana (near Rohtak), Kushana coins weighing about 10 kg were found. Local villagers found these stored in a broken earthen pot, belonging to 70 A.D., which corresponds to Kushana period. Officials of Haryana Archives Department consider the archeological find very significant since it was for the first time in the state that such a huge quantity of coins had been found at one place. "Huge quantity could mean more variety of coins and thus throw more light on the ancient history of the state."

Though a scientific study of the coins has yet to be undertaken, the Numismatic Officer Madhav Acharya believes that this significant find will help us know more about Haryana's heritage.[13]

Coins have pictures and text imprints. Coins of that period reveal the following points:

1. Imprint of the kings and the title of the kings—*rajaadhiraja*, *devaputra*,
2. Hierarchy of the administrative/political units under the Kushanas,
3. Customs and language of the Kushana kings.

Rajaadhiraja and *Devaputra* are Sanskrit words which were also used for the Chakarvartin kings during the *Mahabharata* period. That shows that in spite of their Central Asian origin, Kushana kings were immersed in the usage of local languages. These titles reveal that there must be either small kingdoms as vassals of the Kushana emperor or these were provinces of the Kushana territory and their provincial heads were called *saha* or *rai* or *raja*. Many kings were addressed as *Devaputra* and people prayed for their well-being in temples. Often a statue of a king would be found near a shrine. Many historians, used to the Divine Rights of the English and the European monarchs tend to assume that the titles as well as the presence of royal statues near the shrines indicate that these kings thought of themselves as divine and were considered as divine by the people. Since the word *devaputra* is also used for small children and the senior people were also addressed as *Devas*, it is evident that *devaputrapuja* does not refer to worship of the king. Hindu *Dharma* believes that God is in every living

being and in that sense all people are considered *Devas*. The notion that the kings had divine rights seems to be just an assumption.

People and Administration

The pattern of administration was similar to the one under the Mauryas. There were departments of army, police and the judiciary—each under a separate head. There were *Dandanayaka* who were either the judges or were in charge of the police. Some compilers of history believe that this was the title for the head of the army. This seems to be inaccurate because the army head was called *Senapati* and that title continues till this day for the commander-in-chief. The local government was in the hands of the village head known as the *Gramika*. The head of ten villages was known as *Gramswami*. In between there was a provincial governor. Besides dispensing justice at the local level, all the heads of the administrative units in this hierarchy were responsible for revenue collection. At the village level, every villager was not a part of the militia nor was he beaconed into wars. Perhaps, that is the reason why all through various upheavals up until the Arab/Turkish invasions, people were neither fodder of the invaders nor targets of their loot. Therefore it was easy for the subjects to accept changes in empires.

At the local level, common law was in accordance with the tenets of *Dharma*. Local level democracy according to the ancient traditions of policy and the legal practices continued uninterrupted for several millennia.

Religious toleration continued during this period. The Jaina, Buddhist and the Vedic *Devas* were worshipped. People prayed in the *Viharas* and the temples for the well-being of their loved ones including the kings and their families. *Vedic Dharma* continued to be the anchor of social life of the people.

Economy

Around 100 A.D., Zhang Qian of China established trade routes to India and to Rome in the west. These silk trade routes were later known as "Silk Roads." Both inland and maritime trade flourished during this time. This was possible largely due to the safety and stability provided by the centralized power of the Kushanas in the northwest of the Indian subcontinent and the vast regions of Central Asia. Trade brought plenty of gold and gold coins to India. Each ruler issued gold coins with imprints of various types of pictures and symbols.

Abundance of the minted gold coins suggests three things:

Gold was coming into India due to the export of silk, muslin, spices and many other luxury items. This gold was used for minting coins. According to Pliny, there was hardly any year when India did not drain a hundred million sesterces from the Roman world.

There was a large rich class who were merchants. There were small industries. There were goldsmiths and blacksmiths. The workers from different crafts were organized in guilds.

Copper coins of the era tell us that money was used as a medium of exchange. All these aspects of economy were a continuation of the Mauryan practices and systems.

Kanishka

Kanishka was a great conqueror who not only expanded his empire but gave his people a good administration. Though his ancestors and some of his descendents were followers of the *Vedic Dharma*, it appears that he embraced Buddhism. In those days, hard lines were not drawn between the various faith traditions. It is often seen that the Hindu kings promoted Buddhist and Jaina architecture, arts and literature. Kanishka was no exception to this.

Arts and Artifacts from the Kushana Period

A headless statue of King Kanishka is one of the famous sculptures of the period. The style of the dress shows intricate pleating also used by the Rajputs of Central India. Many historians assume that this style was Mughal and was copied by the Rajputs. The sculpture from the Kushana period proves that assumption inaccurate.

"This imposing sculpture of a king should be compared with the portrait of Kanishka in the Government Museum, Mathura, which dates from A.D. 78–101. The tunic and the trousers derive from Scythian origin but differ from the Kanishka and Castana sculptures in Mathura in that the skirt is pleated with an overlapped hem. The belt is beautifully rendered in great detail reminiscent of the gold and silver jewelry associated with the Scythians of Central Asia. The second belt holds a massive sword that denotes the king as the protector of his empire. This monumental sculpture, with its broad chest and imposing demeanor, portrays a king in all his majesty as the overlord of his empire."[14]

Another headless sculpture of Kushana times shows us the clothes worn by the common people at that time. Students may contrast these with Roman Tioga and the Greek wrap of the early first century.

Sculpted figures, coins and seals throw a light on the religious life of the people. Some of the seals belonging to the Kushana period are shown in the series of pictures at the end of the section. Students may note that many of the seals have divine figures carved on one side.

"Coins that were issued with a comparable stance and likeness of King Kanishka 1 are integral in defining the dates of his reign. There are few extant life-size sculptures of the first king of the Kushana Empire."

Kushana art was simple in style and the statues of Bodhisattvas and *Yakshas* are shown without much adornment. This art style was later followed by the Lichchavi kings who occupied the region about half a century later.

Sassanian (part Persian and part Central Asian) art is used essentially for the depiction of the material images, and the personages portrayed were represented because of their strength and nobility. This combination with Indian art styles became common during the Kushana period.[15]

The tradition of Sun (Surya) worship is very ancient in India[16]. However, the statues of Surya *Deva* made during this period display different styles. Sun imagery with boots, a borrowing from Iran and Central Asia, was introduced by Kushanas in the Northwest India. This image with knee-high boots travels from the Northwest to the East as far as the art historians can ascertain. This type of art work shows diffusion of Kushana art and the earlier Hindu/Buddhist art. It is reflected in the artifacts found in Nepal.

Kanishka and Religions

"The Fourth Buddhist Council was held under the auspices of King Kanishka at Jalandhar (Punjab) or in Kashmir around 100 CE, where 499 monks of the *Sarvastivadin School* compiled a new canon. This became the basis of *Mahayana*. This council was never recognized by the *Theravada* School."[17]

The worship of Vedic *Devas* continued so did the Yogic traditions. Shiva as the ultimate reality was worshipped. "It is interesting to note that in a Kushana coin belonging to Huviska, Ganesa is still portrayed in a human form. This means that his elephant head is a post-Kushana practice."[18]

Kanishka transferred Lord Buddha's bowl from Vaisali to Peshawar, his capital, and built the Bodh Gaya image there. By this time artists and skilled artisans gave forms to the *Devas* mentioned in the *Rig Veda* and to *Brahman* – the Supreme Being. The ornately sculpted statues were placed in the temples. By this time, *Murti Pooja* (worship of symbols) became firmly established in all three faith traditions.

Statue of Sun Kabul Museum – Gallery C

Kanishka is given the credit for the image of Surya riding four horses; however, the concept itself is much older.

The white marble statue (above) of the Sun in his chariot stands 32 cm tall. This image is housed in a sanctuary that is dedicated to the worship of the sun. This piece is also from the Kushana era.

Like Indian kings before him, Kanishka worshipped the Sun. Kanishka tolerated many religions but embraced Buddhism towards the middle of his reign—presumably under the influence of a great scholar Ashvaghosha, and promoted *Mahayana* (Great Vehicle), form of Buddhism. In this sect of Buddhism, Buddha is considered God. Kanishka called the great Council of Buddhist thinkers. The Council composed some 300,000 *sutras* and laid out the details of the new creed to fulfill the emotional needs of the people. Great *stupas* were built with large sized pictures of Buddha and Bodhisattvas – the Buddhist monks. These developments made Buddhism very similar to Hindu practices of worship.

Learning and Literature

During this period, four languages were in common use—Sanskrit, Pali, Prakrit and Kharoshti. Several books were written by the scholars who were patronized by Kanishka.

Kanishka was known for promoting learning and literature. Kanishka's court was adorned by many scholars such as Ashvaghosha, Vasumitra, Nagarjuna and Charaka. Ashvaghosha[19] was a great poet and a master of music. He wrote *Buddhacharita*, a biography of Gautama Buddha. His other

famous books were *Saundarnanda* and *Sariputra-Prakarna*. He also wrote the *Vajrasuci* which refers to the previous *Hari Vamsa* text (which itself refers to the *Mahabharata* text in the past tense).

Charaka was a great physician and he wrote *Charaka Samhita*[20], an extensive treatise on Ayurvedic system of medicine used by the Ayurvedic physicians even today.

Vasumitra compiled a book on Buddhist doctrines. The Kushanas made a major impact on the spread of Buddhism and on the development of the Central Asian metropolis. Although written documents rarely survive, coins have provided essential evidence for the political and cultural history of the region.

Period of Assimilation, Diversity and Cultural Unity

India has always been known for allowing freedom of thought which has led to a great diversity of customs and faith traditions. The assimilation of Kushanas—a foreign group into Indian socioreligious ethos began very early in their reign. The very first ruler, Kadphises bore the title of *Satyadharmasthitasya*[21] which literally means supporter of true *Dharma*. His son and the successor chose to emboss on his coins the pictures of Shiva and his bull, Nandi.

Kanishka used all manifestations of the Divinity on his coins and other art forms. In this way, his approach to religion reflected the Vedic dictum—'truth is one, sages see it differently'. His son continued the same practice. Vasudeva—the last great Kushana ruler used only Shiva's pictures on his coins. Thus, we see that though of foreign origin, Kushanas emphasized the idea of peaceful coexistence of diverse religious and social practices of the people.

Since more than half of the Kushana Empire was in Central Asia, Indian culture slowly affected those distant lands. Besides the political factor, the spread of Indian culture in Central Asia was possible because of the trade and amicable relations with the rulers of the regions far away from the Indian subcontinent. There are several legends attesting to this. One legend says that during the reign of King Huvishka, a Central Asian chief, created a trust fund in Mathura. With the annual yield from the trust, the poor and the learned Brahmins were fed by the guild of wheat growers.

Indian Influence in Central Asia

Indian Kingdoms in Khotan and other Central Asian Regions

Intellectual conquest of these far away regions was not prompted by the desire for discovery of new lands, or ambition to rule over them. The Gandhara art style, Buddhist and Hindu manuscripts were taken there. Monasteries and sanctuaries as well as cities were built. One of the earliest dynasties of Khotan was named Vijaya. According to the evidence found so far, the language used in Khotan was a mixture of Prakrit and Sanskrit.

During the Kushana period, several monasteries were built in other parts of Central Asia, such as, Yarkand, Kashgar and western China. By the 1st century A.D., Indian religious influence was considerable. Indian culture continued to flourish in Central Asia till the times of Turkish and Arab invasions.

Sir Aurel Stein who explored the region of Khotan was amazed by the language affinity and other similarities in Khotan and other nearby places. Looking at these, he thought that he was in Punjab and not some area two thousand miles away.[22]

Decline of the Dynasty

Once a large empire is headed by an inept ruler, it leads to the rapid decline of the dynasty. Many smaller republican chiefs in the south western regions constantly challenged the later Kushanas. However, the most important reason for the decline was the rise of the Gupta Empire in the east and a constant challenge from the Naga kings.

As with Asoka, influence of Buddhism at the royal level made the vast territories vulnerable to encroachment.

First the Naga kings claimed Gangetic valley with its capital at Mathura. Soon the Guptas from Magadha started expanding their empire eventually causing the disappearance of Kushana Empire from the Indian subcontinent.

Nagas[23]

As early as the period of Iksvaku and the Puru dynasties, there had been Naga tribes. Often they emerged as a kingdom and then under powerful rulers like the Mauryas and the Guptas, their sphere of power decreased. These were the people of the maritime civilization who created the Sarasvati civilization involving Bronze Age trade and the writing system. Nagas are also given the credit for the following:

- Vidisa iron pillar (now at Delhi),
- Sanchi Stupa and Bharhut Stupa,
- Irrigation systems around Vidisa which were similar to the rock-cut reservoir technology of Dholavira,
- Naga punch-marked coins and Naga metaphors relating to *Bouddha Dhamma*.

Thus, together with Surya *Vansha* and Chandra *Vansha*, there was a Naga *Vansha* which defined the earliest beginnings of Hindu civilization. The Nagas are also associated with many other markers of Hindu civilization. Some of these markers are:

- *Sankha* industries,
- Water management systems,
- Development of mints and smithy necessary for making punch-marked coins.

For a long time the language of the Naga people was Mleccha. According to the *Puranas*, after the fall of the Kushanas, there were seven Naga kings who ruled from Mathura. Evidence gathered from the coins shows their names as:[24]

- Purusadatta
- Uttamadatta
- Ramadatta
- Kamadatta
- Sesadatta
- Bhavadatta
- Balabhuti[25]

Very little is known about these kings. According to the Buddhist traditions, it was a Naga city on the banks of the river Gomti, where Buddha delivered his sermons. According to the same sources, the Nagas appear to have had many cities under their control from west to east, including Takshashila in the northwest, Rajagrha in Magadha, and possibly Vaisali.

Kingdoms and the Republics Beyond the Indus River

Arutt also known as Aratta or Aanaratta was one of the republics which became part of the Mauryan Empire. After the Mauryan decline, it became independent for a while. Then Kushanas conquered and annexed the entire area into their empire. By this time, like the Kushanas, the remaining Greeks

living in these regions started following Hindu traditions. Some parts of Arutt are in Gujarat today. Most of the region once controlled by Arutt is in the modern day Afghanistan and Southwestern Pakistan. Aratta Republic was along the coast of the river Indus (in greater Punjab region—on the western end—close to Gandhara). In many texts, Indus is praised as a river along the banks of which high quality horses were found. For a long time, Arutt supplied high breed horses all over the Indian subcontinent.

Around this period, many tribal republics also existed in the region between western ranges of Aravali Mountains and west of the Indus River.

Summary

The Kushanas came to India and established a vast empire. Though originally Mongolians, the kings adopted Indian culture and patronized all three religions. The Kushanas were contemporaneous with the Satvahanas who ruled western India and parts of modern day Andhra Pradesh. They provided two centuries of political stability, prosperity and religious activity. Though there were threats from other Indian kingdoms; their rule for over 150 years was a period of peace. Arts and literature flourished. In the northwest (Panchnad area) Gandhara School of Art flourished. In Eastern parts of the empire, magnificent temples and sculpture showed the influence of Mathura School of Art. Hindus and Buddhists started making temples with sculpted statues of *Devas*, various manifestations of Vishnu and of Buddha and Bodhisattvas.

Concepts to Understand

1. Whenever there were weak empires in Central India and the border kingdoms were disunited, invaders from the west had an easy time conquering the country.
2. Buddhism as a state religion made the country defenseless.
3. Vigilance is the price of a stable government. A peaceful society is not possible with an unstable and a corrupt government.
4. Since 600 B.C., India had three religious traditions and numerous shades of Hindu *Dharma*. In a pluralist society such as India, freedom of religion and appreciation of other people's freedom is essential for the survival of its culture. Kanishka and other Kushana kings ensured that.
5. Kushana kings ensured the multicultural character of the society and polity.

6. Kautilya laid great emphasis on stability, good government and peace for the survival of the nation. During the Kushana period, there was stability and prosperity. Arts and literature flourished.

Questions

1. How do we piece together the history of Kushanas? What were the primary sources used in the chapter?
2. Based on the pictures of artifacts, write a paragraph about the religious practices of the kings and the people.
3. In 100 A.D. which were the countries where the Sun was worshipped?
4. How did Indian culture spread to faraway lands both in the east and the west?
5. Highlight and discuss the contributions of Kushana rulers to the Indian civilization and culture.

Enrichment Activity

1. Literary sources up to 300 B.C. do not mention people going to the temples. However, in the literature of Kushana period, both Buddhist and the Hindu temples are mentioned. Ganesha as a deity was worshipped. Do you think worship in temples started in this period? What other evidence points to this development?

Critical Thinking Activity

Map Study

1. Study the maps of Kanishka's empire and explain why it was necessary for him to have two capitals.
2. Compare this map with the map of Asoka's empire and point out the differences. Links for enrichment and detailed studies about art, sculpture and religion of the Kushana Kings and their subjects:

   http://www.afghan-web.com/kabul-museum/galc5.html,

For enrichment, study the costumes of the people of various classes as seen in the sculpture of the Kushana period, students may review the chapter, 'Kushan Period (130 B.C.-185 A.D.) - Ancient Indian Costume' by Roshen Alkazi; in *Ancient Indian Costume*; National Book Trust, - *India Illustrations* by Roshen Alkazi

Discover India: http://www.4to40.com/discoverindia/default.htm

Endnotes

[1] In later chapters, we will describe the rulers in the South and the Palas of Bengal

[2] Hindukush mountain ranges beyond the Indus River were considered the natural northwestern boundary. The modern day Afghanistan was within that natural boundary.

[3] G.P. Singh, *Ancient Indian Historiography: Sources and Interpretations*

[4] Many writers confuse Sakari Vikramaditya with Chandragupta II (known as Vikramaditya). It seems this title meaning sun of valor was very common among the victorious kings. This has caused much confusion about several historical events. At this time the evidence points to the fact that these two kings belonged to different time frames.

[5] Most of the account of the reigns and accomplishments of these dynasties is constructed on the basis of coins, inscriptions, statues and sculpture and literary evidence provided by the writers of the period.

[6] This narrative about the start of Vikram Era is based on Kalhana's *Rajtarangani* as quoted in vol. 4 of *The Study of Indian History and Culture*, Bhishma Publications

[7] G.P. Singh, *Facets of Ancient Indian History And Culture: New Perception*

[8] Ibid.

[9] For the meaning, refer to section 2, chapter 13

[10] Primary source of information (archeological evidence) – a headless statue of King Jaya Varma, (a Licchavi king – around the end of the second century A.D.) found in Nepal, reveals the Kushana art style. Several seals and coins were also found in parts of Afghanistan and Nepal. Also the literary evidence is provided by the accounts of Ashvaghosha.

[11] All pictures, maps and artifacts in this chapter are provided by Dr. Kalyanaraman.

[12] During those days, many parts of Maharashtra and Madhya Pradesh were considered as Southern India because these were a part of the empires of Southern Indian rulers.

[13] Article by Jack Benedict, *The Hindustan Times*, November 30, 2004

[14] For comparison and a further discussion of the reign of King Kanishka I, readers may refer to *Kushan Sculpture: Images from Early India* by Stanislaw J. Czuma. For a discussion of the era, see *Indian Sculpture*, vol. I, by Pratapaditya Pal

[15] See link for details and enrichment activities- http://www.asianart.com/exhibitions/aalondon2001/mainpages/006.html

[16] Several hymns in the *Rig Veda* are prayers to the Sun. The epics also refer to the worship of the Sun.

[17] Source: http://buddhism.kalachakranet.org/india.html
Readers may refer to the chapter on Buddhism for recalling these terms and names.

[18] P.L. Bhargava, *India in the Vedic Age*
Ganesha is Ganapati of the *Rig Vedic* hymns.

[19] See section 3, chapter 26
[20] See section 3, chapter 27 for more details
[21] Sanskrit word
[22] Sir Aurel Stein, *Ancient Khotan, Serindia, and Innermost Asia*
[23] Link and source for this information: S. Kalyanaraman, http://kalyan96.googlepages.com/NagaandNagini.pdf Naga traditions http://kalyan97.googlepages.com/culturallegacy Naga people
[24] G.P. Singh, *Ancient Indian Historiography: Sources and Interpretations*
[25] Ibid.

Chapter 22

Gupta Period

After the end of Kushana rule, there were several small kingdoms—each competing with the others for supremacy. For about 150 years, Northern India was in turmoil. About the beginning of the fourth century, Gupta dynasty came in power. This chapter will discuss the rise of the Guptas to power and their achievements. Approximate time period assigned to the Guptas is from the beginning of 4th century A.D. to the middle of 6th century A.D.

- Chandragupta I was the founder of this dynasty.
- Samudragupta ruled during the years from 335-375 A.D.
- Chandragupta II ruled during 380-414 A.D.
- Kumaragupta ruled during the years 414-467 A.D.
- Skandagupta ruled during the years 455-467 A.D.

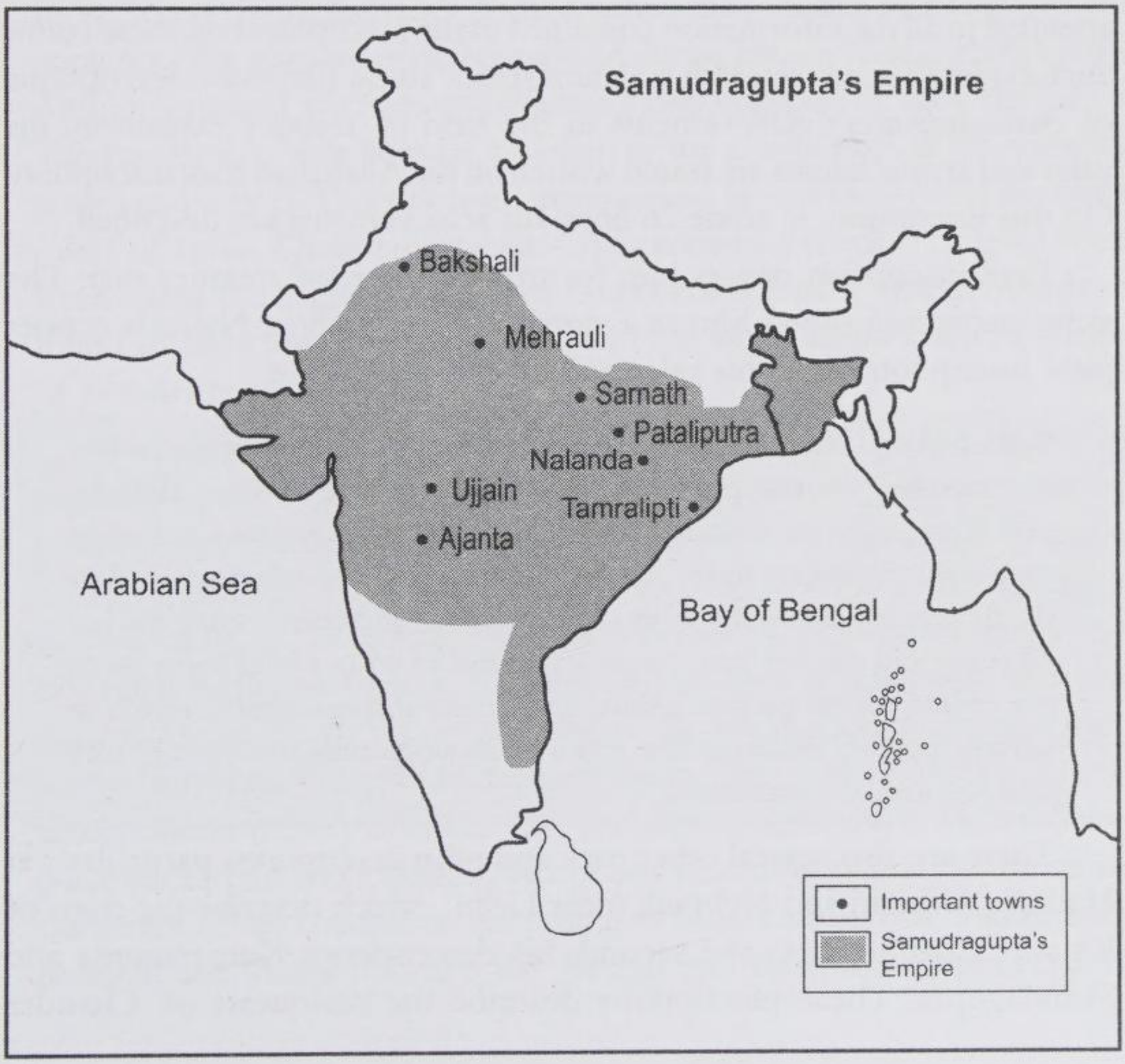
The Gupta period is referred to as the classical period of Indian history. It is therefore important to know about the kings and the illustrious personalities in various fields of the sciences as well as , arts and literature, who were responsible for making this the Golden period of Indian History. It is equally critical that we list notable achievements in the fields of architecture, frescoes, edicts/inscriptions, caves and rock temples, literature, life sciences, mathematics and other fine arts.

The Guptas originated in Magadha. At first their capital was Pataliputra (modern Patna). Samudragupta made Ayodhya his capital. During the times of his son, Chandragupta II, the capital was moved to Ujjayini.

The Gupta Empire had a small beginning. Chandragupta I was a chieftain from Magadha around 300 A.D. Around that time, Brisha Dev, a powerful king of the Lichchavis (a kingdom in the northeast of Magadha) was extending his territory far and wide. Chandragupta was alarmed by the rise of Brisha Dev. He visited Nepal and married Kumara Devi, the daughter of Brisha Dev. Kumara Devi gave birth to Emperor Samudragupta.

After his marriage, Chandragupta added his wife's portion of the kingdom to the area under his control. From that small nucleus, he expanded his reign to include the modern day states of Uttar Pradesh, Bihar, Odisha, Chattisgarh and parts of Madhya Pradesh. Notwithstanding the size of his kingdom, he proclaimed himself the emperor. Through his political tact and vision, he preserved the sovereignty of India.

It was his son Samudragupta, an ambitious general who annexed several kingdoms from four different directions of India. His campaign against various kingdoms of India gave him power and prosperity. He turned his *Dig Vijay*[1] into *Dharma Vijay* by returning the kingdoms to the defeated kings. These subjugated kings became his vassals and paid him tributes. He crossed the Chambal valley in the west, annexed Kalinga in the east and marched right up to Kanchipuram in the south. The victorious king then returned to his capital Pataliputra. After the reign of Asoka and a long lapse of time, India became a strong unified power under his rule. The tributes collected from the vassal states made the kingdom prosperous. People felt secure and happy.



There are interesting stories about him. Besides being an efficient ruler, he was fond of arts and was a talented man. He wrote poetry and loved music and several coins found about his time show him with a *Veena* (a string instrument). He also loved to engage in literary and religious discussions with learned people. Because of his personal interest and accomplishments, the study of arts, architecture, sciences and literature flourished in his time.

True to Hindu tradition, he was a tolerant king who encouraged the building of both Hindu and Buddhist temples. At the request of Sri Lankas' ambassador, the king permitted the building of the famous Mahabodhi temple at Bodhgaya. Near this site, there was already a Hindu temple.

Coins, Clay Seals and Inscriptions from Gupta Period

Archeological evidence of their glorious reign has been available all along. There are many pillars from the Gupta period which have inscriptions. Later on when the coins of this period were found, new facts about several of the kings and their reign emerged. In recent years, more and more coins are surfacing which need to be deciphered. Historians have not attended to all the information contained in the inscriptions on these coins. Such evidence needs research and numismatic study. Elaborate descriptions of Samudragupta's achievements in the field of military expansion, his valor and artistic talents are found written on the Allahabad rock inscription. On this inscription, in some 26 lines, his achievements are described.

Eran inscription praises him for making the royal treasury rich. The same inscription shows him as a worshipper of Vishnu. Nalanda copper plate inscription depict his valor and his literary abilities.

> Writing about this period Vincent Smith says, "By a strange irony of fate this great king-warrior, poet and musician who conquered nearly all India, and whose alliance extended from the Oxus to Ceylon was unknown even to historians of India. His lost fame has been slowly recovered by the minute and laborious study of inscriptions and coins during the last 70 years, and the fact that it is now possible to write a long narrative of the events of his success gained by patient archeological research in piecing together the fragments from which alone authentic early history of India can be constructed."[2]

There are also several other rock and pillar inscriptions particularly at Mathura, Udaigiri and Mehrauli (near Delhi), which describe the reign of his son, Chandragupta the second, his descendents, Kumaragupta and Skandagupta. These inscriptions describe the conquests of Chandra

(Chandragupta) beyond the mouths of the seven rivers of the Panchnad. Samudragupta was succeeded by his son Ramagupta for a short period of time, and according to the legends was slain by the Shakas. Samudragupta's second son Chandragupta (known as Chandragupta II) became the ruler.

Rock and the pillar inscriptions reveal a great deal of information of this period. The information covers the achievements of the kings in various fields as also attest to the character and qualities of these kings. It is difficult to describe or use all the inscriptions listed and discussed by the Archaeological Survey of India. Some of the most important inscriptions for constructing this chapter are: Mehrauli iron pillar inscription, Udaigiri cave inscription, Mathura pilaster inscription, Sanchi stone inscription, Gadhwa stone inscription and, Bilsad stone pillar inscription.

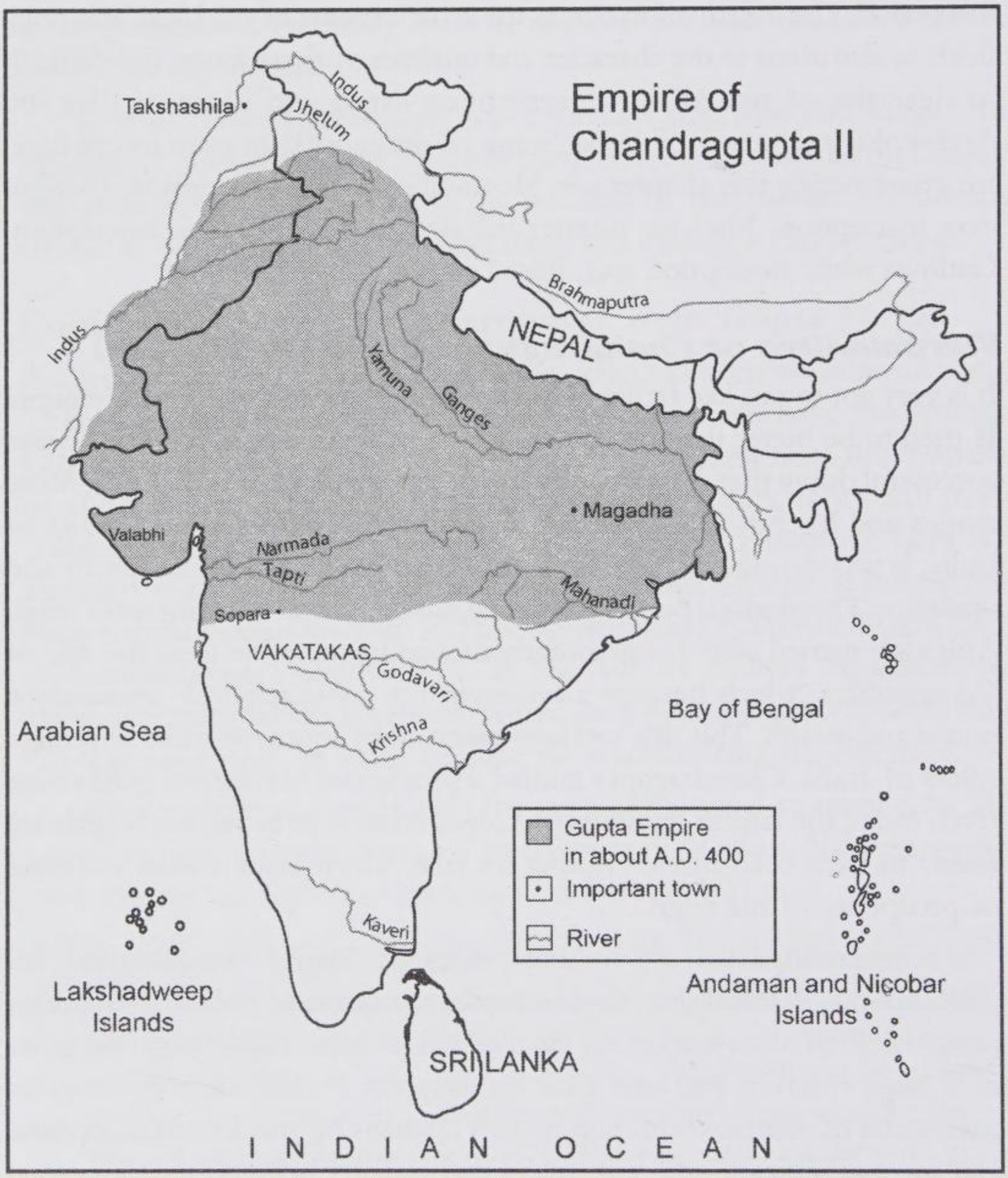
Vikramaditya or Chandragupta II (380 to 413 A.D.)

It is very apt to say, like father like son. Samudragupta's son, Chandragupta II tried to be better than his father, and most historians agree that he was successful doing that. Vikramaditya is the *legendary* emperor of India. More stories and legends are associated with him than with any other ruler of India. It was during his reign, India reached the pinnacle of prosperity and opulence. The glorious period continued during his son Kumargupta's reign. Although named after his grandfather Chandragupta, he took the title of Vikramaditya, which became a synonym for a sovereign of tremendous power and wealth. This title was later taken up by scores of other sovereign rulers of India. Chandragupta minted a prodigious number of gold coins. Even today, the largest numbers of Gupta coins kept in various hoards are found to have been minted during his rule, which bears a solid evidence of prosperity of his reign.

Vikramaditya carried on the policy of 'world conquest' of his predecessors. Political marriages occupied a prominent place in the foreign policy of the Gupta emperors. He married princess Kubernaga, daughter of a Naga chieftain and later gave his daughter Prabhavati in marriage to Rudrasena of the powerful family of Vakatakas of modern Maharashtra. His most significant and well-celebrated military achievement was total destruction of *satraps*, the Shaka rulers of Malwa and Saurashtra in western India (modern Gujarat and the neighboring states). After this, he incorporated these provinces into his expanding empire. Mehrauli iron pillar inscription and Udaigiri inscriptions record his military victories and the extent of his conquests. According to these inscriptions, Vikramaditya defeated the Vanga (modern day Bengal and Bangladesh) kingdom. He

also conquered the kingdoms of Vahilka, Sindh (across the Indus River) and some regions south of the Vindhya Mountains.

Like his father, Vikramaditya provided good administration and encouraged arts, sciences and architecture.



Administration Under the Guptas

The administrative pattern was almost similar to the Mauryan administration. There were separate heads of each department of the government. Similarly, each wing of the army was under a separate commander. The king had several titles such as *Maharaj Adhiraja* (Emperor)

and *Param advaita* (most supreme) etc. There was an officer responsible for matters related to war and peace. His title was *Sandhi Vigrahika*. The empire was divided into several provinces under the charge of *Uparikas*[3] (the equivalent of *pradeshikas* of the Mauryan times). Often these governors of the provinces were the princes and the governorship was passed on to their heir.

Provinces were divided into *vishayis* under the *Vishayapati*. Besides these administrative units there were economic units – occupational guilds. There was a chief artisan, chief merchant and a chief scribe. Such a bureaucratic setup shows that the Gupta kings were able administrators and the administrative machinery can be compared with the working of modern day provincial and local governments.

Fa-Hien's Visit

During this period, several Buddhist pilgrims, merchants and ambassadors came from China. The most notable among them was Fa-Hien. He came in the beginning of the 5th century. In his own journal he mentioned about his six years long journey and many hardships that he faced to reach India. But once there, he found peace and life "without molestation and thievery." He traveled from *Purushpura* (Peshawar) in the west to *Tamralipti* in eastern Bengal. He covered almost the entire Gangetic valley.

Fa-Hien, a Buddhist, did not notice caste conflicts so endlessly talked about by modern writers, nor did he mention any grounds gained by the Brahmins during this period. He mentions that there were Buddhist monasteries in all the holy places along the Yamuna River. People had complete freedom to choose whichever way they wanted to pray and whatever name they wanted to assign to God. Some of the kings and their officials were worshippers of Shiva; some others were followers of Vishnu. Buddhism flourished at the same time, so did Jainism.

Key points in his narratives were:

- Cities had large populations and people were happy.
- People did not have to go to courts or register their households with the state.
- Criminal laws were mainly fines for ordinary crimes. Treason against the government was a different matter.
- Farmers were taxed.
- There were free hospitals and charitable institutions all over the land.

- People did not kill living creatures and there were no butcher shops. Fa-Hien also talks about the glory of the lavishly decorated palaces.[4]

Why is Gupta Period Known as the Golden Era of Ancient India?[5]

Some of the greatest achievements in the fields of sciences, mathematics, astronomy and literature are said to have been made during his reign. The famous and the most accomplished people from various disciplines adorned his court. The nine gems (*Nava Ratnas*) in the times of Vikramaditya were:

1. Dhanvantari – a physician (not to be confused with Dhanvantari who was the teacher of Sushruta a thousand years earlier).
2. Kshapanaka – a Jaina ascetic and philosopher
3. Amara Simha (400-500 A.D.) a Sanskrit grammarian and a poet. He is said to have been "one of the nine gems that adorned the court of Vikramaditya". He wrote several books but only one book, *Amara-Kosha* (Treasury of Amara) has survived the turbulent millennia after his times. This book gives a vocabulary list of the Sanskrit roots. The book has three volumes; therefore, it is often called *Trikhanda* or the "Tripartite." It contains 10,000 words, and is arranged, like other works of its class, in metre to help memorize the meters.[6] He defined *Itihasa* as *Puravrtta* (accounts of the past events). He includes the *Mahabharata* as an example.
4. Shanku
5. Vetalabhatta wrote *Panchavimsatika*
6. Ghatakarpara – known for writing *Ghatakarpara kavya,* and *Nitisara*
7. Kalidasa – The most famous person of the era is also considered to be one of the greatest literary figures of ancient times.
8. Varahamihira – an astronomer who wrote two works on astrology and one on arithmetic.
9. Vararuchi – was a grammarian. He wrote on various subjects. His known works are *Sasana Pattika* and *Patrakamudi*. He introduced certain improvements in grammar, commented upon the incantations, and wrote a poem in praise of King Madhava.

Intellectual people, philosophers and scientists have always been respected by the kings. They received generous royal patronage. Dr. Ananda Sharan has aptly pointed out, "The concept of having intellectuals (Nine Gems) in the court was nothing new in India in the ancient times. For

example, King Janak who had many intellectuals in his court and who is famous for his knowledge of *Advaitism*[7] mentioned in the *Upanisadas*."

The most important besides the nine listed above was Aryabhata. Varahamihira and Aryabhata made major contributions in the field of astronomy and mathematics.

Astronomy Before the Guptas

Prior to this period, Indians had an accurate knowledge about the constellations. During the *Mahabharata* period, astronomers and seers were able to make predictions about the changes in the position of the moon and the constellations. They were also able to predict the solar and lunar eclipses. As mentioned earlier in the chapter on *Mahabharata*, Veda Vyasa predicted that preceding the great war, there would be three eclipses (two lunar with solar in between) in one month. In Gupta period the astronomers began to reconcile the solar and lunar calendar every five years.

Mathematics Before the Guptas

Before the Gupta period, the concept of zero and infinity as also the binary numbers were known to the ancient people. These concepts are the very foundation of Mathematics. One cannot imagine mathematics without the concept of Zero—the Sanskrit word for zero is *Shunya* which literally means nothing. Binary number system would have been impossible without the number zero and so would our numerals and decimal system. Later, building on these fundamentals, Bhaskaracharya proved that any number divided by zero would be infinity and infinity divided by infinity however remains infinity.

The Decimal System

In 100 B.C. the Decimal System flourished in India.

> According to Laplace, "It was India that gave us the ingenious method of expressing all numbers by means of ten symbols (Decimal System)…a profound and important idea which appears so simple, but its very simplicity the great ease which it has lent to computations, puts our arithmetic in the first rank of useful inventions… It escaped the genius of Archimedes and Apollonius, two of the greatest men produced by antiquity."

It may be noted that Romans used letters to denote numbers for a very long time.

Raising 10 to the Power of 53

The highest prefix used for raising 10 to a power in today's math is 'D' for 10 to a power of 30 (from Greek *Decca*) while, as early as 100 B.C. Indian mathematicians had exact names for figures up to 10 to the power of 53. Theses names are still used in Indian languages. Only six figures with names are given here.

Ekam =1

Dashakam =10 (10 to the power 1)

Shatam =100 (10 to the power of 2)

Sahastram =1,000 (10 to the power of 3)

Dashasahasram =10,000 (10 to the power of 4)

Laksha =1,00,000 (10 to the power of 5)

(In Anuyogdwaar Sutra *written in 100 B.C. one numeral is raised as high as 10 to the power of 140).*

The mathematicians of this period also knew measurement of time up to a fraction of a second. The ideas about the spherical shape of the earth, its rotations and revolutions were used in other fields. The scientists of India knew the force of the gravity of the earth and other planets.

Scientific Discoveries

Astronomers in the Gupta period made many discoveries about the sun, moon, earth, and other planets. The most famous Gupta astronomer was Aryabhata, who lived in the late fifth century. Aryabhata belonged to Pataliputra, also known as Kusumpur.

Aryabhata[8]

Aryabhatiyam is written in Arya metre. The original texts have not been found. Aryabhata's discoveries are mentioned in the works of Brahmagupta, Bhaskaracharya and Bhatta Utpala. Some writers believe that Aryabhata borrowed from the Greeks. That is not true.

George Thibaut mentioned that the idea of the earth rotating on its own axis was original and Aryabhata did not acquire such views from the Greeks, adding that he might have been the first or one of the firsts, to expound the principles of that system in highly condensed and technical form, and might have improved the general theory in details. Particularly, he noted that the main body of doctrine existed before him and he did not create it, but merely recast it in a different form.[9] Some of Aryabhata's achievements are listed below.

He calculated the length of one year to be 365.258 days, this figure is in use today.

He determined that the planets are spherical. He made a good estimate of the earth's size and proposed that the earth turns on its own axis. He discovered that the planets Mercury and Venus revolve around the sun and he found that lunar eclipses are caused by the earth moving between the sun and the moon and casting its shadow on the moon.

Aryabhata with his book Aryabhatiyam

The old Sanskrit text *Sulab Sutra* by Baudhayana (6th century B.C.)[10] mentions the value of pi, the ratio of circumference and the diameter of a circle as approximate value of 3. Aryabhata later worked this value to the fourth decimal place which is 3.1416.

Other famous mathematicians of this period were Varahamihira and Brahmagupta. Varahamihira wrote his book *Brihat Samhita*, a handbook on astronomy and Brahmagupta wrote books on astronomical trigonometry.

The school of astronomy was in Pataliputra because it was the capital of India at that time. When the capital shifted to Ujjain, the astronomers also moved there. Ujjain became famous for the school of astronomy. When the Muslims invaded India, these mathematicians moved to Kerala, a safe place for them.

Medicine

In the field of medicine more and more physicians practiced Ayurvedic medicine following the guidelines given in *Sushruta Samhita, Charaka Samhita* and the medical practices of Jivaka.

Literature

Vikramaditya's court was always full of musicians, artists and writers. Kalidasa, one of the nine gems of his court wrote several plays in Sanskrit – the language of the people at that time. He wrote three plays – *Malavikagnimitram* (Malavikaa and Agnimitra), *Vikramorvashiiya*

(pertaining to Vikrama and Urvashi) and *Abhigyaanashaakuntalam* (The Recognition of Shakuntala). The last work is his most famous play. It is about the love story of King Dushyanta and Vishvamitra's daughter, Shakuntala.[11]

Kalidasa is also known for his epic poems. His two famous epic poems are *Kumarsambhava* (the story of Shiva and Parvati), and *Raghuvamsha* (a historical account of the dynasty of Raghu).

His other famous lyrical poems are *Meghduta* (The Cloud Messenger) and *Ritusamhaara*. *Ritusamhaara* is a short book with only six chapters. Each chapter describes one season in India and it starts with the summer season. These plays have been translated in several languages and have been enacted on stage. Because of the exquisite lyrical quality of his works, Kalidasa is known as the Shakespeare of India.

Many other books were written in Sanskrit on a variety of subjects—grammar, architecture, dance, philosophy, laws and ethics. These arts and literature were not just limited to the nobility but all his subjects were expected to learn these arts. Later during the British period, Kalidasa's *Shakuntala* was prepared for the English stage by Kedar N. Dasgupta and Laurence Binyon from London. During this period, several new *Puranas* were written and some of the older ones were updated.

The most notable achievement of this period was the founding of the world renowned Nalanda University by King Kumaragupta. In this university several subjects were offered, such as Vedic and Buddhist philosophy, physical sciences, languages, mathematics, astronomy – just to mention a few. It attracted students from all over the continent of Asia.

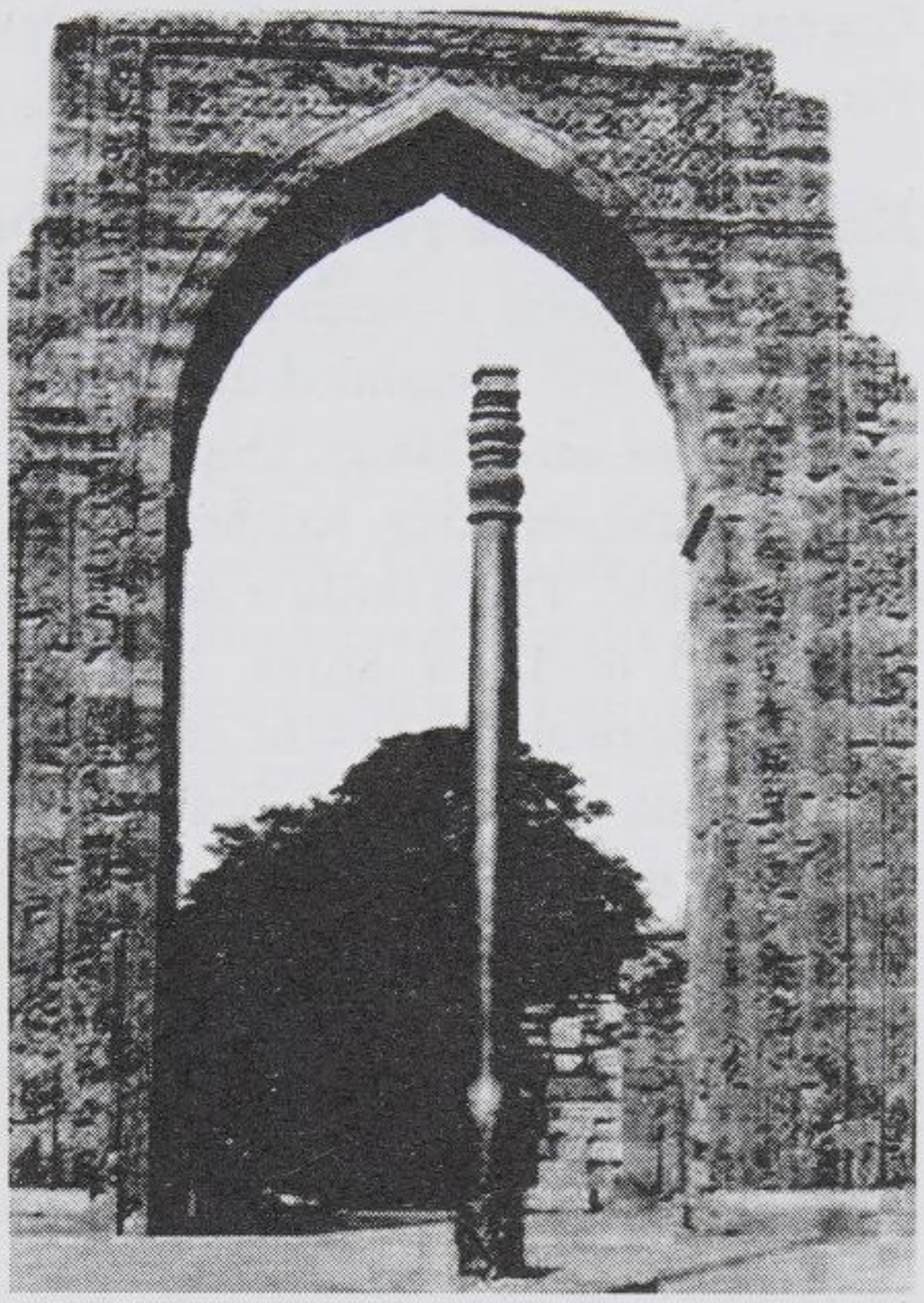
This university became the greatest center of learning during the period of Harsha Vardhana. It was patronized not only by Indian rulers but by many rulers from South East Asia. It continued to prosper for several centuries till it was destroyed by Khilji rulers in the 12th century A.D.

Recent excavations have unearthed the vast university campus. It reminds us of the ancient glory and fame that the university once enjoyed.

Architectural Marvels

Delhi iron pillar has an inscription in Sanskrit language written in Brahmi script. This 4th century pillar originally made as flagstaff in Vishnu's honor is considered to be a wonder of metallurgy.

In the complex there is Quwwat-ul-Islam Masjid (Might of Islam Mosque), which has an inscription on the eastern gate stating that the mosque was built with the material obtained from demolishing 27 idolatrous temples. Many historians wonder that if the iron pillar was a *Garuda stambh*[12], it is likely that there was a Vishnu temple in front of the *stambh*. During the Gupta period, this was the Vishnu temple complex.



Iron pillar at Mehrauli

Here is a quote from an article by Bryan Hodgson[13] about the pillar as well as some other key achievements by Indians,

> "India's heritage of solving problems is often overshadowed by centuries of colonialism and conquest. Outside Delhi, I visited one of the oldest monuments to that history... pillar of iron alloy, smelted by Indian metallurgists with such skill that it has remained rust-less for 1,500 years. These superb technicians were brethren of Indian thinkers who originated the concepts of zero and infinity and devised the inaccurately named Arabic numeral system, giving the science of mathematics to a world drenched in superstitious ignorance."

To meet the religious aspirations of the people, the artists started making exquisitely sculptured temples. Mathura and Sarnath were centers of artistic activity. Unfortunately many of these ancient temples were destroyed in the subsequent invasions by Central Asian tribes. Two surviving temples of that period—one at Bhitargaon near Kanpur and another at Deogarh near Jhansi testify to the fine workmanship of the Gupta artists.

Building work on the famous Ellora caves started during this period. Created along historical and religious themes, carved out of rocks, these temples with frescoes, paintings and statues are marvels of architecture.

Credit for Ajanta caves which have marvelously sculptured statues and paintings around Jaina, Hindu and Buddhist themes is also given to the

Guptas, even though most of the work was completed by the Rashtrakuta Kings of the Karnataka Kingdom.

Kailasa Temple (rock-cut architecture)

The work of such a stupendous nature was started and continued under the patronage of several kings, Guptas and the Rashtrakuta King Krishna I, to name a few. The Hindu caves are dedicated to Lord Shiva. Shiva's manifestations are many – he is shown as Mahakala or the personification of death and time, as Mahayogi or ascetic, as Nataraja or Lord of the Dance. Many other Devas and aspects of the female energy are also portrayed in the sculptured panels. Vishnu and Brahma are also shown in a variety of forms indicating that all different sects had friendly relations and could opt to worship either of the two or both.

Shiva in meditation pose

These depictions are etched and carved on the rocks. These etched murals are called frescoes.[14] Many of the frescoes while still wet were then painted in bright colors. Now only the smudges of colors remain testifying to the damage done by neglect and the ravages of time.

Ajanta

Near the same site, there are some 22 caves on the side of the mountain. These caves are in the shape of the horseshoe and have the most breathtaking paintings, frescoes and statues mostly about Buddha's life. On any given day, a visitor may find some foreign student of arts and painting and trying to capture the enigmatic smile of the Buddha.

The themes from Buddhist, Jaina and Hindu history and legends side by side show the tradition of tolerance and attitude of coexistence. The bloodshed after the 10th century would change the cultural ethos in India forever.

Through a careful study one finds an interesting fact; the intermingling of themes from Buddhist and Hindu history and legends. For example, in Cave 1, a Buddhist saint is depicted on one wall and on another wall of the

same temple is a study of Shiva and Parvati adorned with ornaments. One is simple and the other is ornate and adorned.

The glory of the empire started fading with the death of Chandragupta's grandson and the empire again got fragmented in several small kingdoms unable to unite or defend themselves from foreign onslaughts.

Kumaragupta

According to the inscriptions of that time period, Vikramaditya ruled for a long time. The Bilsad stone pillar inscription records that the next ruler was Kumaragupta who ruled for about 42 years. The last years of his reign saw the threat of Huns. It was not a time of peace.

Skandagupta

Kumargupta's second son Skandagupta ruled next. Throughout his reign, he fought with the Huns. Many of the chiefs in his empire started declaring their independence. These developments weakened the empire and led to its final decline. Gupta dynasty continued for another hundred years but the rulers were just like ordinary chiefs. After Skandagupta's death, one writer repeatedly warned the people about the menace of Huns in these words, "Huns are coming again! Now Skandagupta is no more. The son of Kumaragupta is not present to protect you from the foes."[15] This proves that while he was alive, he did keep the Huns away from the central part of Magadha. The Junagarh rock inscription describes that during his reign Sudarshan Lake was repaired. Several other stone pillar inscriptions such as, Bhitari[16] stone pillar inscription, Kahahum pillar inscription and Supia inscription record the valor of the king. These inscriptions also mention that the king was compassionate towards teachers, ascetics and scholars. Though the king was a great lover of music, circumstances did not let him pay attention to the fine arts or the development of his own talents.

Summary

Scholars agree that the Gupta period was the golden period of Indian history. Although the Gupta kings did not expand their empire to the same extent as the Mauryas did, their suzerainty was accepted as far south as Kalinga, Chedi and some parts of the Andhras. In the fields of arts, literature, mathematics, astronomy, medicine and metallurgy, Guptas made great discoveries. Their artisans made fine sculptures and temples, using themes from all three religious traditions. The iron pillar of Mehrauli (near Delhi) is a fine example of metallurgy. The metal used has not rusted in spite of the rains and the weather changes in the last 1,500 years.

Concepts to Understand

1. Whenever there is a period of relative peace, all the arts and the literary activities flourish.
2. Aryabhata made great contributions in the field of astronomy by calculating the length of the year and by proving the gravitational forces between earth and the other planets.
3. The vast empire of the Guptas was very well administered.
4. It is said that the greatest number of gold coins were minted during the Gupta period. This wealth was used for building roads, inns, wells and hospitals for the people.

Questions

1. List a few advances made by the mathematicians and the astronomers during the Gupta period and discuss their relevance for the modern world.
2. History reveals the foundations and building blocks of progress laid down in the past. Write an essay narrating the significance of some of those building blocks.
3. Imagine the world without the use of zero and decimal system. Write a few equations without using the Hindu number system.
4. Why do governments depend on taxes? What are the other sources of revenue that a government can depend on?
5. What is cultural diffusion? How does it make progress possible all over the world?
6. As some societies continually destroy museums, universities and libraries, how are the traces of glory of the past civilizations destroyed?
7. We have pyramids and mummies from the Egyptian civilization but we have no idea of the Egyptian culture of the time. How was that lost? Students may do some investigative study involving the destruction of the library of Alexandria.
8. When the dating of the iron pillar of Mehrauli is done, how will that affect the chronology of important events?
9. Study the pictures from Ajanta and Ellora caves and temples, given at the end of the section and then write an analytical essay about the thematic unity in Indian art. Discuss the interfaith relations of the artisans and their patrons/kings who created such intricate art styles of magnificent proportions.

10. Judging from the intermingling of themes reflected in the art work, did Indian society practice tolerance and freedom of thought?
11. "Sculpture like nearly everything else in India, prospered under the Gupta line."[17]

In the light of the above statement, discuss some other achievements of the people during the Gupta rule.

Enrichment Activity

1. "An impartial historian might well consider that the greatest triumph of British administration would be to restore to India all that she enjoyed in the fifth century A.D." Evaluate this quote from E.B. Havell and discuss aspects of life in the Gupta period. In your opinion, which aspects of life did Havell want the British to restore?

Critical Thinking Activity

1. Readers may select the reign of Kushanas and the reign of Guptas and compare the contributions of the society in the field of arts and literature. Readers may use examples to build their answer.

Sources

Primary Sources

- Literature of the period, Kalahana's *Rajatarangani*,
- Fa-Hien's travel accounts
- Coins and inscriptions
- Inscriptions of the early Gupta Kings: Archaeological Survey of India

Secondary Sources

- E.B. Havell, *Ancient and Medieval Architecture of India*
- H.H. Gowen, *History of Indian Literature*
- Nag Kalidas, *Greater India*
- Will Durant, *The Story of Civilization*, vol. I
- Vincent Smith, *Oxford History of India*
- *The Study of Indian History and Culture*, vol. IV, Bhishma Publications
- Ananda Sharan, *Times of Kalidasa*
- Link about Shushruta, http://www.ias.ac.in/currsci/jul252007/255.pdf

Endnotes

[1] *Dig Vijay* means the conquest of far off lands in all directions, *Dharma Vijay* means moral victory

[2] First published in 1923, Vincent Smith's history speaks volumes about the glory of Gupta Kings. In the last sixty years, more information is coming in and it needs to be incorporated in the history books.

[3] *Uparikas* and *Pradeshikas* were provincial governors.

[4] *Records of Buddhist kingdoms by Fa-Hien,* translated by James Legge.

[5] Detailed description of the contributions of the Guptas in various fields is given in the chapter 25 and 26 of this section.

[6] *Amarakosha* has been translated in French, English and in several other languages also.

[7] Advaitism literally means Non-duality, i.e., there is no difference between living entities and the Supreme Being.

[8] There is some controversy about the time of Aryabhata. Till this controversy is settled, historians will continue to place him during King Vikramaditya's reign. Aryabhata's sketch by Meera G. Rao.

[9] George Thibaut, *Indian Thought*

[10] Many scholars now place *Sulab Sutra* at 1200 B.C.

[11] India is known as Bharatvarsh after the King Bharata, son of Shakuntala. Readers may check the chapter on *Mahabharata.*

[12] *Garuda* is a large bird and *Stambh* means pillar

[13] *National Geographic Magazine*, vol. 167

[14] It is believed that the earliest dateable paintings were frescoes with Buddhist themes sculpted around 100 B.C.

[15] Quoted in, *Ancient Hindu History*, vol. I, K. Venkatchallam

[16] Bhitari and Kahahum are in modern day Uttar Pradesh and Supia is in Madhya Pradesh.

[17] Will Durant, *The Story of Civilization*, vol.I

Chapter 23

Invasion by Huns and Rise of the Vardhana Dynasty

The Huns Attack from the Northwest

The Indian scene of serene prosperity and harmony creating myriad expressions of spirituality, devotion and feelings in all forms of art has been periodically damaged by the invasions from the north. Invariably, the resulting chaos and influx caused disruption in the life and the creativity of the people. This chapter will describe the effects of the attacks by Huns and the rise of the Vardhana dynasty.

As the Guptas became unable to control their vast empire, the Huns from Central Asia threatened them. They captured the north western kingdoms and marched towards what is now the region of Uttar Pradesh and Bihar. Skandagupta tried to repel them but the warring kingdoms of central India made this task difficult. Chaos, fear and uncertainty marked almost 100 years of rule by the Huns. The period of bloodshed was again followed by peace and prosperity under the Vardhana rulers.

Huns of Mongolia overran parts of China. In China, the Great Wall was built to defend their land from the Hun attacks. Eventually, the Huns were able to ransack vast areas of Central Asia and reach Europe and India. It proves that the Wall was not as effective as the Chinese thought it would be.

Under Attila, these warring groups raided Europe. In India, Toramana ransacked Malwa. His successor Mihirakula (also spelled Mihirgula) conquered vast territories of the Guptas. The next century saw the entire northern India in chaos and bondage. History holds records of two devastations on an extensive scale of the *viharas* of northern India—once by Mihirakula in the western sector in the early part of the 6th century, and again, seven centuries later, by Muslim invaders in the eastern sector around the turn of the 13th century.

A branch of the Huns, called Epthalite or White Huns, had entered India between 500 and 520 A.D. and seized control over the border provinces of Gandhara and Kashmir. A Chinese pilgrim Sung-yun, sent on an official mission to India by an empress of the Wei dynasty, arrived in Gandhara in 520 A.D.

He found the country devastated by the Huns. The Huns gradually penetrated into the interior parts of Punjab and carved out a kingdom. From 518-529 A.D. the Hun king Mihirakula held sway over this territory. The kingdom included Gandhara and Kashmir and perhaps extended farther east, embracing parts of the West Punjab even as far east as Kosambi. He made Sakala (Sialkot in modern day Pakistan) his capital.

Accounts indicate that, this Hun king was a Saiva by faith and a sworn enemy of Buddhism. Though he had adopted an Indian faith he had imbibed little of the Indian culture. The barbarian lust for destruction and vandalism ran in his veins. The Gupta kings fought of and on against the power of the Hun. But it was not till 533 A.D. that Mihirakula was finally defeated by King Yashodharman.

Nearly a hundred years later, in 630-631 A.D., Hieun-Tsang passing through Gandhara and Kashmir, heard about stories of the devastations by Mihirakula. They were then the traditional tales in these parts. These stories were reported by the Chinese pilgrim as he heard them. According to Hiuen-tsang, in Gandhara alone Mihirakula destroyed about one thousand and six hundred *stupas* and the *viharas*. Perhaps the work of destruction spread as far as Kosambi. But the most savage impact was felt in Gandhara, Punjab, Kashmir and western Uttar Pradesh.

The Reign of the Vardhanas

Sixth century was a period of confusion and conflicts. The Huns ruled the North West and the Guptas under King Skandagupta were unable to repel their attacks. With the other neighboring kingdoms threatening the Guptas, the Gupta Empire was crumbling. Yashodharman, a courageous local leader from the area defeated the Huns and annexed parts of the Gupta kingdom. He became the ruler of central India. We do not have much information about his reign or his successors but Mandasore inscription (dated 530 A.D.) records his achievements as to how he defeated the Huns and established himself as a ruler in the vast kingdom.

Around the same time, Pushpabhuti of Thaneswar extended his small kingdom towards the North West. He used the title Vardhana. Thus, he started the reign of the Vardhana dynasty. Gradually the kingdom became an empire known as the empire of Kanauj.

Harsha Vardhana of Kanauj was the last emperor of the dynasty begun by Pushpabhuti. There were seven rulers in between. Not much is known about these kings but they are mentioned in *Harsha Charita* written by Bana Bhatta about the times of Harsha. Bana Bhatta was in the court of King Harsha Vardhana. Harsha was a contemporary of the Chalukya King Pulakesin II.[1]

Harsha Vardhana of Kanauj lived in the first half of the seventh century A.D. Born in 590 A.D., he ruled during the years 606-657 A.D. He was crowned as a king at the young age of 16. During the next six years, he was continually engaged in wars with the neighboring kingdoms. By the end of this period, he extended his kingdom up to the banks of the Narmada River. Harsha tried to annex the territory of the Chalukya King but both times he was defeated. Thus, Narmada River and Vindhya Mountains remained the boundaries of his kingdom. In Northern India he remained the undisputed sovereign. He created political unity in his vast empire and maintained friendly relations with China, Tibet and Iran.

During Harsha's reign, many Tibetan missionaries also came to India.

Harsha's Administration

Bana gives a good description of how Harsha ruled his empire. The king personally attended to the details of administration and often went on tours of distant parts of the kingdom. Bamboo camps were constructed for the king's entourage. The king held open court for people to talk about their problems.

Hieun-Tsang also corroborates these accounts. The Chinese visitor mentions that the people were happy, the taxes were fair and the king was always concerned about the welfare of the people.

One of Harsha's profound and far reaching achievements was the uniting of the Jat clans from the Punjab, Central India and Uttar Pradesh. These clans generally operated as independent republics, known as *Khaps*, governed by their council of five, known as the *Panchayat*. The United *Khaps* were known as the *Sarva Khap* (literally all *Khaps*) and governed by the *Sarva Khap Panchayat* from Shoron near Muzaffarnagar.

The *Sarva Khap* acknowledged and anointed Harsha Vardhana as their Emperor. Harsha ruled with their consent. The *Sarva Khap* had an all *Khap* meeting every five years. This tradition continued down to 1857, when the British destroyed the power of the Jats.

Harsha created an empire extending up to central Indian mountains which he ruled competently. Not much is recorded about his military adventures except his unsuccessful campaigns against Pulakesin II.

Religions in Harsha's Times

All three religions, Buddhism, Hinduism and Jainism flourished during Harsha's reign. Two sects of Buddhism, Shiva worshippers and Vishnu worshippers were respected by the king. The king allowed periodic assemblies for free discourses.

As a scholar himself, Harsha Vardhana loved discussions with scholars from different religions. He also held *Yajna* ceremonies every five years at Prayag.[2] The ceremony was marked with charities from the royal treasury. The story as narrated by the contemporary scholars says that on the last day of the great *Yajna* (a 12 yearly event), the King would give his own royal clothes and ornaments in charity. His reign and his personal practices reveal the peaceful and prosperous coexistence of various faith traditions in India. He continued to worship *Surya Deva* and Lord Shiva but also respected other faith traditions. He encouraged discussions between the scholars from various faiths.

Who was Hiuen-Tsang?

He was a Chinese aristocrat who gave up his comfortable life to make a pilgrimage to India. Starting in 629 A.D. he traveled through the lake of Issykkul and the cities of, Balkh, Bamian and Kabul. During his long stay, he learned Sanskrit language, Indian philosophy and visited several holy places. He collected manuscripts and statues. He also studied in Nalanda University for three years and then lived as a guest in the kingdom of Assam ruled by King Kumara. Learning about his piety and scholarship, King Harsha invited him to his own court.

The Chinese visitor Hiuen-Tsang talks about Harsha's fame and gives a grand narrative of the famous assembly at Kanauj. He stayed in India for over ten years.

Kanauj Assembly

In 643 A.D., Harsha summoned an assembly at Kanauj. The object of the assembly was to take advantage of the presence of Hiuen-Tsang in order to spread the teachings of Buddha in the country. A large number of kings attended the assembly. There were 5,000 *Mahayana* and *Hinayana* Buddhist monks, 3,000 Brahmins and *Nigrodhas*[3] and about 1,000 Buddhist scholars from Nalanda University. Harsha proposed Hiuen-Tsang to the

chair and prescribed for discussion a topic on *Mahayana* beliefs. This meeting lasted for 23 days.

Harsha Vardhana was the last great Hindu Emperor to rule in India. Besides being a competent administrator of a vast kingdom, he treated his subjects with compassion. His legendary generosity and periodic discussions of *Dharma* in public assemblies are some of the things to follow if we want to restore harmony among people. Tolerant of all religions, he supported Buddhism and Jainism.

Education and Literature During Harsha's Period

Education also got royal attention and during this time Nalanda University continued to draw students from other countries such as China, Japan, Korea and Tibet. As mentioned earlier, in the 7th century India, Nalanda University offered a variety of subjects, such as grammar, *Dharma*, astronomy, mathematics, medicine and philosophy.

Harsha was also a great writer. At least three works are attributed to him—*Ratnavali*, *Priyadarsika* and *Nagananda*.

Besides, Harsha and Bana, there were other famous literary figures in those times. Mayura, Haradatta and Jayasena were writers. Bharavi, Dandin and Kumaradasa were famous Sanskrit scholars. This period witnessed intellectual cooperation, promotion of learning and education. We get a fairly good insight of the sociopolitical life during Harsha's reign from Bana's *Harshcharita*, and Hiuen-Tsang's narration of his travels in India.

Harsha and His Relations with Neighboring Countries

India and China had cultural relations since the first century A.D. Chinese curiosity about the rich and varied culture of India brought many Chinese scholars to India.

Tibet, the roof top of the world was an isolated area. During the 6th century A.D. a leader by the name of Strong-Tsan united several small chiefs and created a united power in Tibet. His son Strong-Tsan Gampo was the contemporary of Harsha. In Tibetan history, Strong-Tsan Gampo is considered to be the greatest ruler of the ancient times. His marriage to a Chinese princess and later to a Nepalese princess geared him towards Buddhism. He was greatly interested in Indian languages, political philosophy and *Dharmas*. He sent a mission to India. The mission was headed by Sambhota—a scholar who studied several Indian languages and scripts. As a result, the Brahmi script was selected and introduced in Tibet.

After 6th century A.D., there was an exchange of scholars between India and Tibet on a continual basis. Introduction of Buddhism in Tibet took Indian scholars from Bihar, Bengal and especially from Nalanda University to Tibet. Often the scholars were invited by the kings of Tibet. Two famous invited scholars were Atista and Tantrik Padmasambhava. Inspired by the Indian artists, Tibetans depicted the life of Buddha on silk scrolls which were placed in the monasteries. Readers may remember that when China attacked Tibet in 1950, most of the Tibetans came to the state of Himachal Pradesh in India. These refugees included Tibetan people, monks and the Dalai Lama—their spiritual head. Many people who remained in Tibet witnessed the destruction of their monasteries and temples. Precious art forms and manuscripts were destroyed in the process.

Harsha's death led to the decline of the dynasty as also the end of a peaceful era in northern India.

Summary

During the 6th-7th century, great advances were made in the field of literature, education, architecture, music and religious philosophy. At the same time, consolidation of the empire and good administration assured peace and stability for the people. Harsha himself paid great attention to the building of roads, wells and inns for the people. These public works were needed because when the great assemblies were organized, people had to travel long distances to attend those public discourses and assemblies.

Concepts to Understand

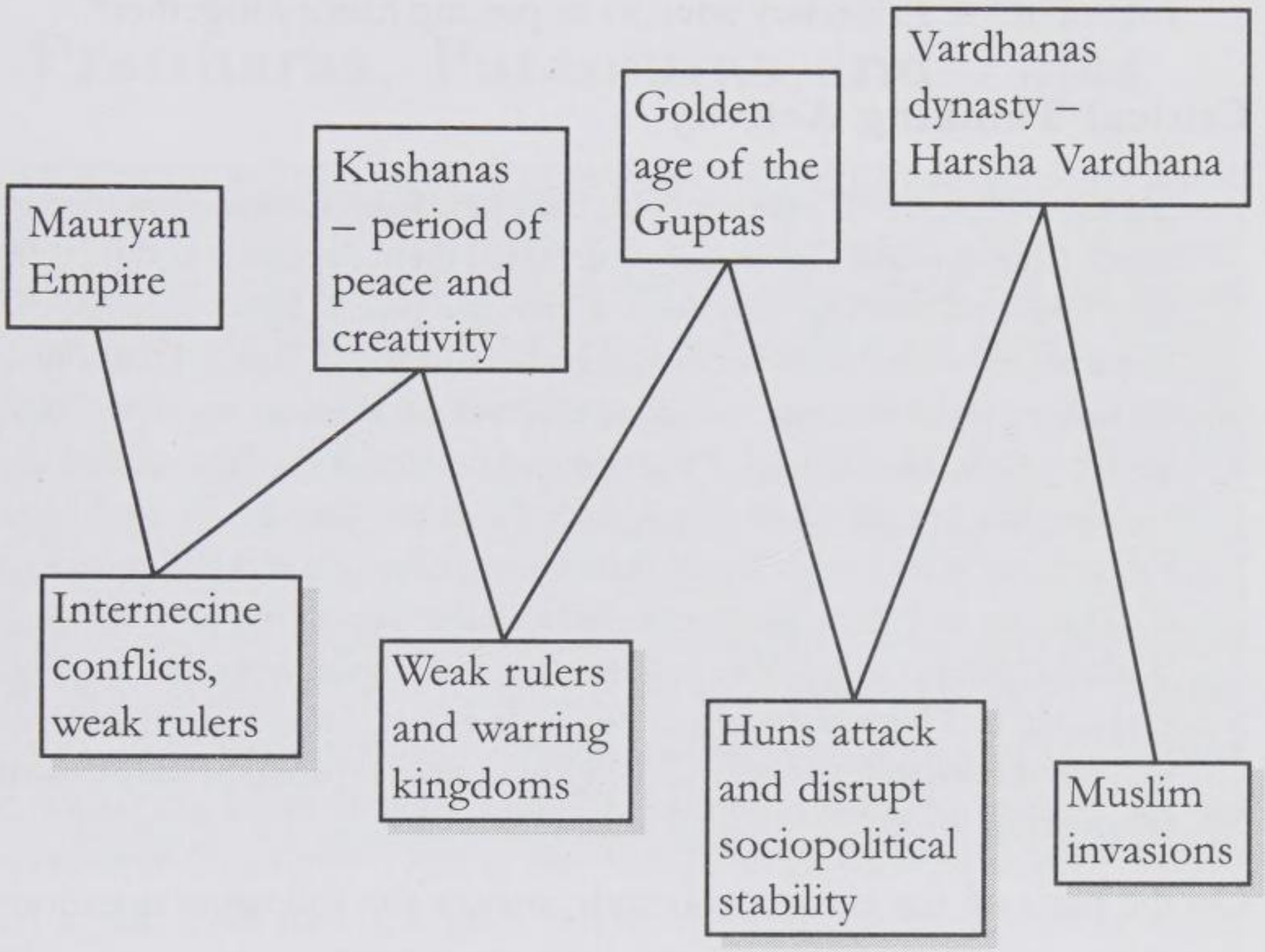
1. Whenever there is peace and stability, there is prosperity in the kingdom.
2. Creativity of the people flourishes when kings patronize arts and support the literary people.
3. Harsha's rule saw a period of religious openness and tolerance—an experience which nearly vanished after the 11th century in northern India.
4. During this period, the center of learning shifted to Kanauj. However, Pataliputra and Ujjain continued to be great cities.

Questions

1. Hallmark of a civilization is not the land a king conquers; it is the good administration and the security that he gives to his subjects and the artistic achievements of his people.

In the light of this statement evaluate the reign of Chandragupta the Second and Harsha. Build a discussion around their achievements in various fields.

2. Peace correlates with progress in arts and scholarship. Study the following chart and comment on this statement drawing from your experience of the study of other countries.


Mauryan Empire
Kushanas – period of peace and creativity
Golden age of the Guptas
Vardhanas dynasty – Harsha Vardhana
Internecine conflicts, weak rulers
Weak rulers and warring kingdoms
Huns attack and disrupt sociopolitical stability
Muslim invasions

3. On the basis of the following paragraph, students may write a report about the destruction of archives and other places of learning in the world. They should include recent events such as, the destruction of Bamian Buddha statues and the destruction of the Iraq museum.

"During the Afghan civil war in the 1980s, when the Russians invaded Afghanistan, one of the most regrettable casualties was the destruction of a rare Sanskrit manuscript collection housed in the Kabul museum. Both sides in the conflict bombed the museum destroying valuable artifacts housed therein."

4. Study the paragraph about education in the chapter. Compare Indian universities of that time with the other universities in Europe, China and Middle East which offered such a variety of subjects. Students may do a little project finding parallel developments in other regions of the world in the 7th century A.D.

Enrichment Activity

1. List the primary sources for the history of Harsha Vardhana. Can Marxian interpretation of history change the written accounts of Harsha's contemporaries?
2. Later day commentaries in the light of modern subjects of sociology and anthropology are at best opinions and commentaries. What is the role of these secondary sources in piecing history together?

Critical Thinking Activity

"At the end of the 5th century A.D., the Huns from Central Asia tried to attack China but the Chinese army defeated them decisively at this 3,000 mile long wall[4] with fortifications at strategic places. Unfortunately, the Huns turned westwards after their defeat in China and changed the course of history by destroying two great empires of the ancient times. One branch of the Huns ravaged Europe and destroyed the Roman Empire and another branch turned towards India at the time when the Gupta Empire was at its zenith. From their bases at Bamian and Balkh, one of the Hun commanders, Toramana, defeated the Gupta army and occupied Kashmir, Punjab, and Malwa, and his son, Mihiragula, extended the Hun conquest to Gujarat. North India, as a result, Hindu empire never recovered from this disaster and the ground was prepared for the Moslem conquest of India."[5]

On the basis of the above paragraph, answer the following questions:

1. Could such a wall be constructed in India? What are the geopolitical limitations that can cause problems for such a venture?
2. Discuss and explain if any country can insulate itself physically in the modern day world.

Endnotes

[1] Details about the Chalukya King Pulakesin II are given in section 4, chapter 35.

[2] Prayag, also known as Allahabad is the confluence of three rivers; Ganga, Yamuna and a tributary of Sarasvati. The last one dried up in 2,000 years B.C.

[3] *Nigrodhas* were philosophers not belonging to any sect.

[4] The Great Wall of China is 80 miles north of Beijing.

[5] Satya Prakash Saraswat, Ph.D., Professor of Information and Process Management Bentley College, USA

Chapter 24

Pratiharas, Paramaras and Palas

During the decline of the Vardhana dynasty of Kanauj, the nucleus of power had already started shifting to the east and the southwest.

Readers may remember that India has witnessed this phenomenon throughout its ancient history. During the Vedic times, the seat of power was the Panchnad[1] area. It shifted east during Kuru rule. For several centuries, Magadha remained the seat of power. It reached its glory during the reign of the Nandas, the Mauryas and the Guptas. Samudragupta shifted his capital to Ayodhya. Later, his successor, Vikramaditya shifted the capital to Ujjain[2]. Both Ayodhya and Pataliputra—the previous capitals continued to be important cities as provincial headquarters with the seat of several administrative functions. During the Vardhana period the seat of power shifted again. This time the shift was to the southwest. Vardhana rulers chose Kanauj as their capital.

During the decline of the Vardhanas, several new kingdoms arose towards the east of Magadha and the south west of Magadha. These kingdoms covered parts of the modern day states of Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, Bengal and Odisha. Since most of these kingdoms were ruled by the Rajput kings, the area came to be known as Rajputana.

Giving the historical accounts of contemporary kingdoms is a difficult job. It is like writing the history of Italy, France and Germany as one historical narrative. This chapter is therefore divided in several sections covering the historical accounts of the kings of the Pratihara, the Paramara and the Pala dynasties.

Gurjaras—Pratiharas

Pratiharas and several other dynasties of Rajputana claimed to be the descendents of Iksvaku dynasty. Verses 3 and 12 of the Gwalior *Prasasti* of Bhoja[3] refer to Rama and his terrible fight with Ravana after Rama

built a bridge over the sea. The family to which Bhoja belonged is traced from Lakshmana, the younger brother of Rama. *Pratihara* (doorkeeper) was their insignia.

According to another legend in some manuscripts of *Prithviraj Raso*[4], Pratiharas were one of the Agnikula clans of Rajputs. They were of Gurjara origin. This is also confirmed by the historians such as Vincent Smith.[5]

Harichandra is said to have laid the foundation of this dynasty in the 6th century A.D. The Harichandra line of Pratiharas established the state of Marwar near modern day Jodhpur in Rajasthan.

A hundred and fifty years later, his successor, Nagabhata I ruled from 730-756 A.D. He conquered Malwa and reached as far as the port of Bharuch in Gujarat. He extended his control to the east and the south. He established his capital at Avanti in Malwa. His greatest achievement was that he repulsed the attacks by the Arabs who had already established themselves in Sindh. In a series of battles with the Arabs in 738 A.D., Nagabhatta led a confederacy of Rajput clans to defeat the Arabs. The stopping of the Islamic wave of conquests that had crushed the lands from Europe to the borders of India ranks as one of the many great achievements of the Rajputs. With the successive victories of the joint forces of several Rajput clans began the reign of the imperial Pratiharas and the Rajput period of Indian history. After these victories, Nagabhatta took advantage of the disturbed conditions and tried to unify the numerous smaller states up to the border of Sindh. Pratiharas became the overlord of the smaller clans of Guhilot, Mori, Chauhans and the Solankis. In the face of a united front, the forces of Junaid (the Arab leader) had to flee beyond the Indus River.

Verse 11 of the Gwalior stone inscription describes the virtues of Nagabhatta I thus, "the king Nagabhatta I (Of him, whose mode of life was beneficial to all mankind), the incomprehensible royal qualities (like eloquence, statesmanship, etc.) became manifest in the world, even from boyhood, by his forcible seizure of the hill forts of the kings of Anarta, Malawa, Kirata, Turushka, Vatsa and Matsya."

Nagabhatta I was followed by two weak successors. The next great ruler was Vatsaraja who ruled from 775-805 A.D.

Accomplishments

Pratihara King Vatsaraja built Jaina temples at Ossian. Several other temples were added by later rulers during 8th and 11th centuries. These temples belonged to Hindu and Jaina traditions. The Ossian city was a major

religious center of the kingdom of Pratihara kings. The most famous of the 18 temples made during this period are the Sun temple and the Kali temple. During his reign, the Arab threat was minimal.

Continual Arab Invasions

Even though it took the Arabs in Sindh a long time to recover from their defeat, they did not give up. In the early 9th century, Arabs under the leadership of Bashar attempted an invasion of India. They were defeated by Nagabhatta II and his subordinate chiefs, Govindraja Chauhan and Khommana II of Guhilot clan. Even the naval expedition sent by the Caliphs was defeated by the Saindhava Rajputs based in parts of Sindh and Gujarat. According to an Arab chronicler, after this defeat, the Caliph Mahdi, "*gave up the project of conquering any part of India.*"

Nagabhatta II rebuilt the great Shiva temple at Somnath in Gujarat which had been destroyed in an Arab raid from Sindh. During his rule, Kanauj became the center of the Pratihara state, which covered much of northern India. The period from 836-910 B.C. saw the peak of their power.

The next great king of this dynasty was King Mihir Bhoja. Bhoja faced some resistance from the Pala king of Bengal. After a few defeats, Bhoja was able to consolidate and expand his kingdom. The boundaries of the kingdom were Sindh in the west, Narmada River in the south and Magadha in the east.

His son Mahenderpala continued to consolidate and expand the kingdom in spite of being faced with internecine warfare with the Palas, Rashtrakutas and the Chandelas of Bundelkhand. During his time the vast Pratihara Empire extended from Kathiawar to the east of Bengal. However, after Mahenderpala's death, the empire started shrinking. The challenges from the Rashtrakutas of the south, the Palas of Bengal, the Chandelas of Bundelkhand and the lack of vision and diplomacy on the part of the Pratihara kings were responsible for the decline and disintegration of the kingdom. By the end of the 10th century, the Pratihara domains had dwindled to a small kingdom centered at Kanauj. Mahmud Ghazni attacked and ransacked the city of Kanauj in 1018 A.D. and the Pratihara king Rajapala fled.

National Awakening and Unification of the Kingdoms

The threat from the Arabs and the Turks was fairly serious. Despite facing defeat after defeat, the Arabs kept pitching for moving east of Sindh. This enemy posed a unique type of threat. Not only did they devastate the

lands and plundered the wealth of the regions they attacked, they captured women and children who were sold as slaves in the African and the Arab countries. Men were gruesomely butchered. This situation required a strong central power integrating all the neighboring kingdoms. This happened often during the reign of the Pratiharas when the Chauhans, Solankis and Chandelas joined the Pratiharas. However the far off kingdoms did not realize the seriousness of the threat from the external invasions. The Palas of Bengal was one such power who continued to weaken the joint efforts of the central kingdoms.

Kalahana, the renowned scholar from Kashmir mentions that Lalitaditya, the king of Kashmir even sent ambassadors to China seeking their help in dealing with the Arab invasions.

The national integration of the central power also led to a new national awakening. People felt the need to make some social changes. Women and children who were rescued from the Arabs had to be reabsorbed in the society. Those who were forcibly converted to Islam were to be brought back to their castes and guilds. Some system had to be devised. To deal with such issues and problems, a learned *Rishi* by the name of Devala wrote a short composition. The title of the book is *Devala-Smriti*. After doing purificatory ceremonies suggested by Devala, many people returned to Hindu *Dharma*. The contemporary Muslim chroniclers mention that those converted to Islam went back to their idolatory.[6] We get a fairly good account of the life of people of those times from several sources. Al-Beruni, Biladari and Sulaiman give an account of the events and describe the social life of the people. Sulaiman makes a special mention of the fact that the ladies used to be present in the courts of the kings and they did not wear any veil. The costumes of the ladies differed from place to place according to the regional climate and the local customs.

Besides the Muslim sources, the most valuable sources of history of this period are Rajasekhara's books. Rajasekhara enjoyed the patronage of Mahenderpala and his son Mahipala. His most famous books are – *Karpuramanjari, Kavyamimansa, Balaramayana, Balabharata* and *Viddhasalabhanjika*. His works reveal that women in those days possessed immense talent. His wife was a talented lady. Rajasekhara mentions that women enjoyed singing, dancing, and playing on musical instruments. Most ladies wore ornaments and used cosmetics.

Rajasekhara mentions several seats of learning. According to him Bhinmal in Rajputana was a famous academic center known for astronomical studies.

Economic Conditions

Rajasekhara gives the following highlights of the socioeconomic conditions:

People were prosperous and often set up trusts for educational and charitable purposes.

Agriculture was advanced and the farmers used *Araghata* (a type of Persian wheel). Many different types of grains and several other varieties of crops were grown. He refers to the sugarcane crop of north Bengal and rice, bajra and wheat of central India. The Arab writers mention that western India was famous for coconut, mangoes, rice, lemons and cotton.

Workers were organized in guilds and there were guilds of various types of occupations. For example, there were separate guilds of the gardeners, the potters, the blacksmiths and the artisans.

Interstate and foreign trade was carried out all over central India. Rajasekhara mentions that people had freedom to choose occupations and there was vocational mobility.

Religious Conditions

India continued to witness religious understanding and the spirit of coexistence. During this period hordes of persecuted Zoroastrians from Iran started arriving in Saurashtra. Without any trace of conflict they became one more religious strand in the religious tapestry of India. Rajasekhara mentions that by this time *tantra* became part of the Buddhist practices. Buddhists also started eating meat and drinking alcohol. The waiving of these restrictions brought their beliefs and practices almost parallel to those of the common Hindus.

A seal bearing the impression of *Varaha*[7] (believed to be an *Avatara* of Vishnu) proves that the Pratihara kings were Hindus. However, they patronized other religions as well. Vatsaraja built the famous Jaina temple at Ossian. The Dilwara Jain temple was also built during this period.

Military Might of the Imperial Pratiharas

The joint forces of the Pratiharas, the Chandelas and the Chauhans were mighty. The Arab chronicler Sulaiman describes the army of the Imperial Pratiharas as it stood in 851 A.D.,

> "This king maintains numerous forces and no other Indian prince has so fine a cavalry. He is unfriendly to the Arabs; still he acknowledges that the king of the Arabs is the greatest of kings. Among the princes of India there is no greater foe of the Islamic faith than he. He has got riches, and his camels and horses are numerous."

This Muslim chronicler gives details about the strength of each wing of the army.

Paramara Kings of Malwa

The most widely accepted school of thought considers the Paramaras to be one of the four Agnikula clans of the Rajputs. The Paramaras established themselves as the rulers of Malwa in central India in the ninth century, ruling from their capital at Dhar[8] . Their first king was Upendra who ruled from 800 A.D. to 818 A.D. The Paramaras enjoyed great political power in ancient India and continued to rule until 1305, when Malwa was conquered by Alaudin Khilji.

King Bhoja of Malwa

King Bhoja, who ruled from about 1010 to 1060 A.D., was known as a great philosopher king of medieval India. His extensive writings cover philosophy, mathematics, architecture, poetry, archery, medicine, phonetics and yoga. Under his rule, Malwa became an intellectual center of India. Bhoja also founded the city of Bhopal to secure the eastern part of his kingdom. The Bhoja Airport at Bhopal is named after King Bhoja. Paramara capital Dhara was famous throughout India as a center of culture and learning, especially under King Bhoja.

This king wrote *Samarangana Sutradhara.* The book is an encyclopedic work on Indian classical architecture, known as *Vastu Sastra.*

Here are some verses[9] from *Samarangana Sutradhara*, which describes characteristics of an expert *sthapati.*[10]

> "The architect should be well-versed in the science involving the significance of objects to be created and their specifications. He should know the theory and the practice; he should have the insight and the skill accompanied with procedure. That person is said to be an expert in workmanship who knows how to sketch the ground plan, draftsmanship, the horizontal and vertical measurements, the details of ground work of the plot, the 14 kinds of sketch lines, the cutting of the logs and stones etc., and seven kinds of circular sections; well finished joinings of the joints and proper demarcation of upper, lower and outer lines. A *sthapati* should know eightfold workmanship, the draftsmanship and sketches of various kinds, and variety of carpentry, stonemasonry and gold-smithy. The engineer equipped with these merits invokes respect. One who knows the fourfold engineering with its eight constituents and who is pure in his mind gets status in the assembly of engineers, and is endowed with a long life."

With these expectations from the architects, several magnificent temples were built during this period.

Medicine

Ayurvedic doctors continued to perform complicated surgical procedures during this period. Medicinal liquor was given to the patients to numb the pain. Will Durant mentions, "In 927 A.D., two surgeons trepanned the skull of a Hindu king and made him insensitive to the operation by administering a drug called *Samohini*"[11] . There is a legend that this king was Bhoja of Pratihara dynasty.

Architecture

During this period, the iron pillar of Dhara was built. This pillar is considered to have been the highest iron pillar of those times.

> According to Amitava Ray, "Although archeo-metallurgists world wide, marvel at the ingenuity of making the 5th century Delhi iron pillar, few seem to realize the skill of artificers who made the massive 42 feet high iron pillar at Dhar in the Indian state of Madhya Pradesh. As history unveils, this pillar was built during the reign of King Bhoja (1010-1053 A.D.) at Dhar, then the capital of the ancient kingdom of Malwa. Unlike the iron pillar at Delhi, the Dhar pillar has been ravaged by events in history that witnessed numerous conquests and invasions. Consequently, it no longer stands at its original site of erection, but now lies as three fragmented pieces on concrete supports outside the 'Lat Masjid' at Dhar. The profile of the pillar has a continuous taper from bottom to top; the lower part of the pillar has a square cross-section, the middle part is partly square and partly octagonal, while the upper part isoctagonal with a circular section at the top end as is shown schematically."[12]

Pala Dynasty of Bengal

After the death of Shashanka of Magadha and King Harsha of Kanauj, there was a vacuum of power in the eastern and the north eastern regions.

In the middle of 8th century A.D. a new power arose in the eastern parts of India. Gopala, a small chief in Bengal took advantage of the anarchy in Magadha and Bengal. Since all the succeding kings had Pala[13] at the end of their names, the dynasty came to be known as the Pala Dynasty. His son Dharampala expanded the little kingdom towards the west up to Mongher in the modern day state of Bihar. Mongher became the capital of his kingdom. He ruled from 770 A.D. to 781 A.D. For a short period of time, he even controlled Kanauj, the capital of the Pratiharas. But the

Pratiharas gained it back. His successor Devpala continued to annex some territories from the Andhras of the south and the Pratiharas of Kanauj. Thus, these internecine wars weakened all the kingdoms involved making it easier for the Arabs to continue their raids in the interior of India.

The last important king of this dynasty was Ramapala who ruled from 1077 A.D. to 1120 A.D. He strengthened the dynasty in Bengal and expanded its power up to Assam and Odisha.

Ramapala was not only a great warrior and an administrator but he was also very popular with his subjects. He is the hero of a historical poem—the *Rama Carita* written by the writer, Sandhyakara.

The Palas were supporters of Buddhism. They sent missionaries from their kingdom to Tibet and succeeded in establishing Buddhism in Tibet. Palas patronized a distinctive school of art. Artists from that region created unique sculptures in stone and metal.

Sena Dynasty

Towards the decline of the power of the Palas, a new Indian dynasty began to establish power in Bengal in the 11th and 12th centuries. This dynasty is known as Sena dynasty after the last name of their founder, King Hemantasena. His ancestors came from the south. Hemantasena was just an ordinary chief during the reign of the last Pala king. He declared himself an independent king. His successor, Vijayasena built an empire on the ruins of the Palas, thus gaining control of all of Bengal and northern Bihar. Vijayasena ruled from 1095 to 1158 A.D.

The Sena kings patronized Hinduism in Bengal. This led to a marked revival of Hindu arts and the temple activity. The last important Sena king, Laksmanasena ruled from 1178 A.D. to 1205 A.D. He was a great patron of literature. The great poets Jayadeva and Dhoyi adorned his court. His power did not last for long after the Khiljis expelled him from his capital Nadia.

Summary

India witnessed several upheavals during the period between 7th century A.D. and 1,000 A.D. Most of the time due to the lack of a central power, the Arabs took advantage and increased their effort to advance to the territories east of Sindh. Triangular struggle for control between the Palas, the Pratiharas and the Chandelas weakened the Hindu defenses. Still, there were great achievements in the field of literature, medicine, architecture and social awakening. Many kings saw the need for national awakening and social reform because of the new type of external threats.

Concepts to Understand

1. When the nation faces external attacks, kings need to end their internecine warfare.
2. Most of the time Hindu kings of Rajputana, Bengal and Bihar did not see the need for national integration.
3. There was a vacuum of power after the death of King Harsha of Kanauj.
4. Several smaller clans and kingdoms tried to fill that vacuum.
5. Some strong powers arose between 750 A.D. and 1,200 A.D.
6. North of the Vindhyas, the three most important dynasties were Pratiharas of Kanauj, Paramaras of Malwa and Palas of Bengal.
7. Due to the continual attacks by the Arabs, many kingdoms were weakened.
8. The fabric of society was not broken. In fact it readjusted with some changes.
9. The available historical accounts of this period proved that the need of the hour was unification of the kingdoms and the end to internecine warfare.

Questions

1. What are the lessons we can learn from the history of this period? Students may keep in mind the current geopolitical situations in order to discuss the answer.
2. What are the sources of history for this period?
3. Which sources listed in the chapter can be considered as primary sources?
4. Explain the relations between the followers of various religions of India at that time. What were the attitudes of the kings during this period?
5. After studying the paragraph from the book *Samarangana Sutradhara* by Paramara King Bhoja, discuss if the architects of modern times are expected to have similar qualifications.
6. Identify Raja Bhoja of Paramaras and explain some of his achievements.
7. How did the Arab invasions affect the sociopolitical scene of Central India?

8. What was the status of women in those days?
9. What are the main sources of information about the Pala, the Pratihara and the Paramara dynasties?

Enrichment Activity

1. Vedic religions emphasized freedom to choose beliefs and faith traditions. It allowed the coexistence of four different faith traditions. What was the scenario in Europe during this time frame? Students may research the Greek and Roman history of this period to build their answer.

Critical Thinking Activity

1. In the light of the above chapter, students may study the dangers to national security of Indian democracy. Discuss the dangers from within and from the neighboring countries. For this, students may have to get information from some newspapers of recent times.

Sources

Primary Sources

- Accounts of the Muslim chroniclers such as Al-Beruni, Sulaiman, Al-Masudi as quoted in H.M. Elliot and John Dowson – *History of India as told by its own Historians*, vol.1
- *Devala-Smriti*, Kalahana's *Rajatarangani*, works of Rajasekhara
- Various inscriptions listed in the chapter.

Secondary Sources

- *The Story of Civilization – Our Oriental Heritage* by Will Durant
- *A Study of Indian History* by B.N. Puri
- *The Study of Indian History and Culture,* Bhishma Publications, vol. IV

Endnotes

[1] *Panchnad* area had several noted cities from where the Purus, the Kurus and several other kings ruled. The most famous capitals were Kurukshetra, Gandhara, Hastinapur, Takshashila, and Indraprastha.

[2] Ujjain is also known as Ujjayini or Avantipur. It is located on the eastern banks of the River Kshipra.

[3] The Gwalior *Prasasti* of Bhoja[3] around 876 A.D. Source: *Epigraphia Indica* vol. XVIII (1925 – 26) text on pp. 107-110 followed by English translation. Information courtesy S. Kalyanaraman.

[4] *Prithviraj Raso* is the epic story about King Prithviraj Chauhan of Chauhan dynasty. It was written by Chand Bardai, a courtier from the court of a later Rajput king. It seems that the original manuscript of this work was concise but there were some interpolations later on. As a result, several manuscripts exist.

[5] Other sources of information: Gwalior stone inscription of Bhoja Pratihara, Jodhpur inscription of Bauka Pratihara and literary accounts given in *Bappabhattcharitam*, *Harivamsapurana* by Jinasena, *Kumarpalacharita* by Jaysimha

[6] Muslims refer to the Hindu and the Buddhist practices of offering prayers to the symbols and deities as idolatry.

[7] *Varaha* – Sanskrit word for boar

[8] Dhara is located in the modern state of Madhya Pradesh. The name literally means the blade of a sword. It had been a famous city for a long time.

[9] Excerpts are translation by Punya Mishra.

[10] Sanskrit word for an architect

[11] Will Durant, *The Story of Civilization*, vol. 1, p. 531

[12] Source: 'Microstructural Manifestations of the Ancient 11th Century Iron Pillar at Dhar, India' by Amitava Ray
R&D Centre for Iron and Steel, Steel Authority of India Limited, Ranchi, India

[13] Pala in Sanskrit means protector.

Chapter 25

India's Contributions to the World of Ideas

Some of the ideas which form an important part of modern day life and practices all over the world came from India. This chapter will focus on the ideas that shaped the world and continue to do so.

Ethics in Warfare

In ancient times, the wars were waged according to strict rules; the fighting was restricted to battle areas and every soldier laid down arms at sunset. There were no night raids. The commencement of the war next morning was announced by a loud blowing of conch shells from both warring camps. Women and children were not targeted nor attacked randomly. Looting conquered lands was not allowed. These ideas are now part of the International Red Cross and some of the international organizations under the UNO.

Political Ideas

Chanakya (4th century B.C.) was the first person to emphasize the need for uniting Indian kingdoms as one nation under a strong central power. He also laid down the basics of foreign policy. What he said 2,300 years ago in *Artha Sastra* and several other books, can be traced in the treaty organizations such as the North Atlantic Treaty Organisation (NATO) and the South East Asia Treaty Organisation (SEATO). His treatise discusses the role of a competent king, the duties and importance of the advisors, and the basics of a sound foreign policy. He also gives elaborate guidelines for maintaining internal security and a clean administrative system. Some eighteen centuries later, some parts of his book found expression in the book, *The Prince*.[1]

Grass root democracy in the form of village panchayats started in India several thousand years ago. Locally elected by the villagers, five elders

dispensed justice and maintained law and order. They also resolved petty disputes. Panchayats also ensured support for dependents and the disabled. *Atharva Veda* lays down the duties of the king for the welfare of the subjects. It specifically mentions that the king will respect the will of the people. He will treat his subjects as his children. Chanakya went a step further and advised that if a king violates *Dharma* and oppresses his people, the people can revolt against him and install another king. Acting on his convictions, Chanakya engineered the upheaval against Dhanananda, an autocratic ruler and placed Chandragupta Maurya on the throne.

Philosophy

The concept that every action has a reaction is an idea which originated in India. The Karma theory became the foundation of social ethics. Several other societies echoed this point but did not include it as an essential part of social ethics.

Vedic Indians believed that matter is indestructible and so is *Atman* (the soul). At the time of death *Atman* seeks another form (body). Matter itself changes form all through one's life. Through transformation, the matter gets recycled age after age.[2] In the world of ideas, Indian thinkers and seers made major contributions. Some of these are given below:

- The concept of the world being one family
- Harmony between individual happiness and the happiness of the world
- Inner peace in a peaceful world, respect as well as protection of nature and the environment
- Yoga as the first step for self-realization and a preparatory stage for communication with the higher powers

Later as the new variations in faith traditions emerged, these very ideas were either reiterated or readjusted by other religions of Indian origin. Free enquiry into self-motivation and freedom to choose and evaluate one's goals (what we now call introspection) was first contained in Hindu thought. Many of the ideas which originated in India are enshrined in the vision of the leaders of many new programs. Globalization and the idea of international cooperation were envisioned by Hindu seers at least five millennia ago.

Environmentalism

Vedic Indians considered nature sacred and suggested that we show reverence to it by not polluting, disrupting or misusing it. Programs for

safeguarding the environment and the endangered species are offshoots of the Jaina emphasis on non-injury to all living creatures. Leaving the land fallow by cultivating only two major crops in a year and thus restoring the nutrients of the soil are ideas of Indian origin. Recycling of all broken or unusable articles is an ancient practice and is still followed in India. The rest of the world is catching up on this idea.

Medicine

The ancient seers suggested that nature gives many things to nourish all life. It also gives natural antidotes to combat diseases. Herbal medicines made from plants and other vegetation were used and their usage is still common in India.[3] Fasting for self-purification is practiced in India to this day.

Psychology

Indian philosophy emphasizes introspection as the first step to self realization. The question of what God or the Creative force is, can only be examined after a person has figured out who he is. Here is a very apt quote from Sastry Putcha, "Never mind what the materialists or others say and don't bother about God. Do you exist or not? What is your idea of yourself? What do you mean by 'I'?"[4] Communication with the Supreme Being expressed in devotional songs or dialogue can only be meaningful if the person has already established who he/she is.

Some of the major principles of modern psychology are enshrined in the *Bhagvad Gita*, which discusses the nature of the human mind. When Arjun points out that, "The mind is restless, turbulent, stubborn and strong. Controlling it is more difficult than controlling the wind." Krishna answers, "No doubt, the mind is restless and for ever in motion (agitated), but with practice and austere discipline, one can control it."[5] It further explains that mind is its own friend and its own enemy. Four millennia later, the English poet John Milton made a similar observation.

Various folds of consciousness and brain activity are also analyzed in the *Bhagvad Gita*. For example, Krishna explains that above the sensory perception is the mind, above the mind is the intellect, above the intellect are discernment and judgment and above them all is one's *Atman*. *Atman* is the silent witness. In the western world, ideas about consciousness and its origin were introduced a mere two hundred years earlier. These issues are elaborated further by many other philosophers who wrote *Dharma Sastras* and laid down the basic concepts of *Vedanta*. Besides *Dharma Sastras*, there

are *Upanisads* which discuss philosophical questions of living entities and the universe in the form of dialogues between the teacher and his disciples.

Dharma Sastras

Shastras are written in *sutras* (aphorisms).

There were several schools of philosophy in ancient India. It was a common practice to have discourses and debates on the merits of one school of thought against the other. Many such debates were hosted by kings. During the time of Buddha, students graduating from universities were invited by kings to present their views on various philosophical matters in the open court. It is said that no other country has ever had so many schools of thought. "In one of Buddha's dialogues we learn that there were sixty-two distinct theories of the soul among philosophers of his time."[6]

Indian philosophy has certain rules common to all schools:

a. As a guide to finding what is real and true, intuition and direct perception are superior to reasoning.
b. The goal of discussion and debates is not to gain control of the world but to find release from it.
c. Desires and unfulfilled ambitions cause suffering and anguish and one should try to control desires and scale down ambitions through introspection and Yoga. Some of these ideas are now contained in many modern books about management and stress control.
d. Ambition, struggle, success, fame, wealth and progress are not sufficient for lasting inner peace and happiness. In spite of all the material achievements, one may still feel unhappy and unfulfilled. At that point, one needs to communicate with higher powers through prayers, self-purification, meditation and yoga.

There are six *shastras* which are popular among students of philosophy.

We are not certain about the antiquity of these writings. But many of the ideas highlighted in the *Sastras* are mentioned in the *Bhagvad Gita* and the *Mahabharata*. Most scholars agree that these texts definitely predate Buddha's time. Thus, the Sutra period is many centuries earlier than the periods of the Greek philosophers such as Socrates and Aristotle.

1. *Nyaya Sastra* – It was written by Gautama. *Nyaya* means going into a subject. Through analytical reasoning, the mind is led to a conclusion. Gautama laid down principles of finding the proof (*pramana*). Four proofs by which one can reach true knowledge are intuition, inference,

comparison and testimony. Gautama's ideas about the use of reasoning, argument and logic for investigating the truth precede similar ideas of Aristotle.

2. *Vaisheshika Sastras* – It was written by Kannada. *Vaisheshika* means specific or particular or special. In this *Sastra,* Kannada discusses the theory of knowledge. According to him, there are four kinds of valid knowledge – perception, inference, remembrance and intuitive knowledge. *Vaisheshika* propounds the atomic theory. According to Kannada, all compounds are made from the combination of elements such as ether, air, fire, water, earth, ego and mind. Particles of each of the elements are called *Anu* (literally, an atom). Atoms are indivisible. Thus, Kannada explains that the world is full of a vast number of things. These are all combinations of atoms. Atoms are indestructible but they change form. These changes are governed by invisible forces of nature.
3. *Sankhya*[7] *Sastra* – It was written by Kapila, it deals with cognition, material reality and the *Atman*. Kapila explains *Prakriti* (the material world) – its various aspects (known as *Gunas* or qualities) and elements (known as *tattvas*) and how they are affected by the mind and body of a person to create a physical reality for him. Kapila uses the word *Purusha* for the person. There are twenty five *Tattvas* that make up the world. *Sankhya* logically explains the interconnection between *Purusha* and *Prakriti*. The *Atman* is not affected by the happy or unhappy state of mind. It is not affected by the afflictions of the body.

   This philosophy is described in the second chapter of the *Bhagvad Gita*. Both *Purusha* and *Prakriti* go through evolution. The world exists in the *Prakriti*, which is imperishable. A liberated *Atman* reaches a state where it is least affected by the activities of *Prakriti*. About the existence of God (as understood by most religions), Kapila says that something infinite cannot be conceived or demonstrated by human reason.
4. *Mimansa*[8] – It means analysis. Sage Jaimini said that for truth to be examined correctly requires the mind to be objective. Without the interference of emotions and ego, the seeker of truth should examine all aspects of a situation. *Mimansa* has two parts—*Poorava*[9] *Mimansa* and *Uttara Mimansa*. The former deals with the ceremonial aspects of conducting *Yajnas*, such as chants and *Brahmanas*. *Uttara Mimansa* is the philosophy or knowledge part of the *Vedas* and is based on the *Aranyakas* and the *Upanisads*.

Mimansa lays down procedures for interpreting the Vedas through investigation and reaching the true conclusion. For example, "A Vedic text is initially taken for discussion, and a doubt is expressed about it. An imaginary objector or opponent is made to give his views on it, followed by its refutation by the author and finally the summing up again by the author."[10]

5. *Yoga and self realization* – Yoga means fusion or unison of mind, body and emotions. Concentrating on the breath and chanting *Om*, one begins this process. *Yoga Vashishtha* is the first book written on the subject. In this book, Yoga is defined thus Yoga – is control of the flow of inclinations of the mind.[11] Later, *Yoga Sutra* an exhaustive treatise was written by Patanjali.

Patanjali's *Yoga Sutra* explains how to find liberation through perfect control of the body and the mind. This can be done through yogic practices and controlling the *Rajas* and *Tamas gunas*.

If emotions such as anger or irritation occur in your mind or your thoughts, these emotions do not let you unite your body and mind. Do not let your anger interfere. Calm down first by taking deep breaths and focus on the breath. Yoga starts with chanting *Om*, which purifies body through inhalation, retention and exhalation. Through constant practice one is able to still tumultuous thoughts and learn to relax. The following steps lead us to a relaxed state:

First, the senses are unified with breath. Then, the mind is unified with breath. Next, the consciousness is unified with breath. In the end, the cosmos is unified with the breath.

Yoga improves concentration and leads to fitness of the mind and the body. It has several health benefits, especially in combating diseases related to stress.

There are eight limbs of Yoga known as *Ashtang yoga*.

The eight limbs are described below:

Yama – moral virtues such as non-injury to all creatures, truthfulness, non-stealing and the control of greed

Niyama – cleanliness, contentment, asceticism, study of the holy texts and devotion to God,

Asana (posture) – a proper posture is adopted for meditation. The posture should be comfortable and restful so that a *yogi* can regulate the breathing and still the mind. The correct posture keeps the spine straight and the mind still.

Pratyahara – (control of senses), the material world is shut out so that the mind can turn inwards.

Dharna – keeping the mind focused on an object.

Dhyana is meditation.

Samadhi, is transcending all reality. It is the ultimate stage that *yogis* want to be in. Here, the mind is aligned with Brahm and is unified with the Cosmos. Patanjali believes that faith in the power of the Supreme Being helps in the *yogic* process.

Many eminent philosophers ridiculed yoga even some eighty years ago. Many labeled the *yogis* as beggars, freaks or mendicants. Some even used the term 'weirdoes'. Maharishi Mahesh Yogi and Raman Maharishi brought yoga to the West. Mahesh Yogi was one of the first Gurus who started transcendental meditation and opened Yoga centers. He also started a school and a university in Iowa State which are great institutions for learning about Indian spirituality. The curricula there are based on the Vedic teachings.[12]

Aurbindo Ghosh, a famous yogi, said, "All life is Yoga."[13] This aphorism is carved on a two rupee coin. The coin also has an engraved picture of this early twentieth-century Indian sage and philosopher.

Recent validation of yoga as a part of holistic medicine and a way of stress management in modern socioeconomic systems has brought yoga to the popularity that even Patanjali might not have predicted. It is said that, today millions of people practice yoga regularly. It is a major psychological tool to improve health—both mental and general. It improves our attitude towards life, the self and other people.

Yoga is not simply a set of postures and exercises. Instead, it is a part of Hindu philosophy. The tradition is seven millennia old. An etched picture of a yogi on an ancient seal is dated to 5,000 B.C.[14]

"If we want to benefit from the true power of yoga in our daily lives, then we need to go back to traditional teachings. The spiritual heritage of India reached our Western shores intact."[15]

6. *Vedanta* - literally means the end part of the *Vedas*. *Upanisadas* form the gist of the *Vedas*. This gist is captured in *Vedanta*, which is considered the highest philosophy. Veda Vyasa[16] the writer of the *Mahabharata* and compiler of the Vedas also wrote *Brahm Sutra*.[17] Later, several other philosophers expanded the concept. The central idea of *Vedanta* is that the Divine (Brahm)[18] is in all living creatures. *Atman* cannot be different from *Brahman* because nothing can exist outside of *Brahman*.[19]

The living creatures find themselves apart from the Divine because of their ignorance and illusion. *Brahman* is the sole reality behind the universe.

This idea of *Advaita*[20] (*Atman* and *Brahman* being identical) was further expanded and explained by the great philosopher, Shankara. Another philosopher Ramanuja also discussed *Vedanta*. He differed from Shankara in the concept of *Brahman*. According to Shankara, *Brahman* is beyond qualities and attributes. The way to liberate oneself is by getting rid of ignorance and illusion. According to Ramanuja, *Brahman* has form and function and the way to reach Him is through good deeds and devotion.[21] Dvaita School of philosophy believes that the world is real and independent of the mind. The mind does not invent it. It merely discovers what is already there.

The *Advaita Vedanta* emphasizes the theme, "*Tattvamasi*". Translated from Sanskrit, it literally means "thou art that". In other words, it means that the Individual (consciousness) is the Universal (consciousness).

There is nothing there for the individual to 'realize' since he/she is already the Infinite. Therefore, *Advaita Vedanta* says there is no separate God once the truth is uncovered. All of these ideas contained in the six *Dharma Sastras* are given in a summary form in the *Bhagvad Gita*.

Vedic Indians described four motivational forces that govern action. These are righteousness, earning a living, desire fulfillment and searching for the means to liberate oneself from negativity. The first of the three ideas were propagated by Abram Maslow a few decades back. The Vedic ideas not only emphasize the role of enjoyment and pleasures in life but also lay down the basis of social behavior and morality.

Family and Society

Ashrams

Adjustment of desires and motives with the changes in the body were considered necessary and clear cut duties and roles were suggested for each of the four stages in life. Each stage is known as an *ashram*. The idea of four Ashrams[22] was first thought about by the ancient *Rishis* in India. The first *ashram* of twenty five years is devoted to education and building skills. Moral values and the social responsibilities are taught. Teachers and

parents are involved in the guided process of shaping of personality and behavior.

The ideas relating to providing security to the dependents and the elderly was part of the vision of early Indian societies. The system of joint and extended family ensured that all members of the family were taken care of. Chaos ruled families and societies in Europe and Central Asia for a long time resulting in cruelty and suppression. Even today, abuse and violence within the families is leaving children vulnerable and homeless in many modern societies in the western countries. Many people have come to question the rational of nuclear families.

Guild System

Occupation based division of society and organizing various artisans in craft guilds ensured jobs for everyone and fairness in the economic system. Modern day unions may find their early beginnings in the Indian guild system.

Tolerance and Spirit of Coexistence

Hindus are well known for tolerating and respecting all religions and they are expected to do so, not only by Hindus but all others who believe that it is the major characteristic of Hinduism. Several other religions engage in continuous negative propaganda against Hindus to neutralize Hindu resistance to conversion. Hindu tolerance has not diminished even in the face of conversions.

According to UNESCO, out of 128 countries where Jews lived before Israel was created, only one country—India, did not persecute them and allowed them to prosper and practice Judaism in peace.

Similarly the Zoroastrians, when driven out of Persia by Islam were given shelter by the Hindus in India and still coexist in India peacefully. Very recently, the Dalai Lama and millions of his followers driven from Buddhist Tibet, have been accepted. They have made beautiful temples in the foothills of Himalayas in the state of Himachal Pradesh. The beautiful shawls, rugs and clothing of Tibetan art style are sold all over the world; so are the fabrics embroidered in *Tangkha* style. Mark Twain once said, "In religion all other countries are paupers; India is the only millionaire". Similarly, Arnold Toynbee mentioned in his writings "...at the religious level, India has not been a recipient; she has been a giver. About half the total number of the living, higher religions are of Indian origin".

When President Bush visited India in 2006, he pointed out,

> "As a multi-ethnic, multi-religious democracy, India is showing the world that the best way to ensure fairness and tolerance is to establish the rule of law. The best way to counter resentment is to allow peaceful expression. The best way to honor human dignity is to protect human rights. *For every nation divided by race, religion or culture, India offers a hopeful path.* If justice is the goal, then democracy is the way."[23]

Ancient Indian philosophy can lead the world to globalization. This will be possible when all people learn to view the world as an extension of the society. Without using these ideas as an anchor, any international organization will remain ineffective in dealing with conflicts. It will fail to bring world cooperation and peace.

Summary

India represents the spirit of excellence and pursuit of beauty and truth in arts and sciences. The ideas discussed in this chapter are some of mankind's highest aspirations. These are inspiring and a proper understanding and appreciation of these may help us find our common ground with all humanity. India had been under foreign rule for over 1,200 years. During this period Indian culture has received severe jolts. Surprisingly many of the ideas basic to Indian thinking and way of life not only still survive but have been assimilated and copied by other countries and cultures. India is not given any credit for such pioneering efforts.

The world of ideas is strange. Original thinkers remain unmentioned in history because those who write history can without legal consequences either appropriate these ideas themselves or through manipulation of chronology, impute, that these ideas were copied by the original thinkers. The writers, through selectivity, can pick up the ideas which suit their purpose to advance their own interests. Thus, general people get a distorted image of India's contribution to the world of ideas. Information channels — books, internet, television and radio have played a major role in dwarfing the role of Ancient India.

Concepts to Understand

1. Unity in diversity.
2. Matter is indestructible as is *Atman*.
3. The idea of global humanism is expressed in this sutra — *Vasudhaiva Kutumbkam*. Viewing the world this way leads to a search for peace, ensures nonviolence and non-injury. It is integral humanism. Without

artificial political boundaries, the world is considered borderless and an extension of the family.

4. Yoga is a spiritual practice. It has therapeutic value. If it is simply considered a set of exercises then its other benefits are lost. Though it is an essential part of Hindu philosophy, it is practiced all over the world by millions of people belonging to different faith traditions.
5. The ultimate form of self-realization is reached through transcendental meditation.
6. Yoga starts with sound vibrations that purify the body and mind through inhalation, retention and exhalation.
7. Indian philosophy emphasizes introspection as the first step to self realization.

Questions

1. Which idea is the precursor of the modern day slogan of globalization?
2. Which ideas are essential to environmentalists?
3. Which idea is the essence of liberty and democracy?
4. Sometimes omission of ideas is because of ignorance and many times these are deliberate. Take one example from the chapter and discuss it. Class teams can take opposing positions to explain and discuss how bias is caused by the omission of significant contextual facts. They can pick any one chapter and omit a significant name or event or person and see the distortion that is caused to the content of history.
5. In the age of globalization, why is it necessary to promote an understanding of the multicultural nature of humanity?
6. Compare the merits of an extended and nuclear families. Which one is better in today's environment?

Enrichment Activity

1. "The most potent weapon in the hands of the oppressor is the mind of the oppressed." Steven Biko

   On the basis of the above chapter, what are the weapons used to condition the minds of laypersons?
2. Students may study patterns and structure of society in Europe and Russia around 2 millennia ago to explain the conditions of workers in those countries. They may also compare the role of trade unions with that of the guilds of Ancient India.

Critical Thinking Activity

1. Examine the following ideas and discuss if these ideas are parochial. Do these ideas belong only to Hindus or Indians? Use the following prayers and *sutras* to build your answer.

   Here is a selection of some verses from the *Vedas* — only English prose translation is given here:

   a. Peace in the space, peace on earth, peace in the water, peace in the world of medicine and vegetation, peace in the universe, peace in the Creator, peace everywhere, peace in peace; let that peace come to my mind. [Peace here can be termed as tranquility and calmness.]

   b. Let all of you be happy, may you all be healthy, may you all see noble things, and all suffering may go away.

   c. The whole world is a family.

   d. We are different birds sitting on the branch of the tree.

New Words to Learn

- Cultural diffusion – Interaction between cultures and subsequent process of assimilation in a culture
- *Ashrams* – four phases of a person's life
- *Darshanas* – a vision of the Self, systems of philosophy
- *Sutras* – aphorism
- Selectivity – selecting partial information out of context to suit a particular point of view or to lay down a specific hypothesis

Endnotes

[1] *The Prince* was written by Niccolo Machiavelli, an Italian writer in the 15th century.

[2] In section 2, chapter 11 these ideas are explained with reference to the researches done by modern physicists.

[3] This point will be discussed in detail in the next chapter under the heading- "History of medicine and surgery in Ancient India - Ayurveda"

[4] Source: *The Untold Story of Hinduism* by Sastry Putcha

[5] *Bhagvad Gita* – chapter 6, verse 34, 35

[6] Will Durant, *The Story of Civilization*, vol. I

[7] *Sankhya* literally means numbers, enumeration, and the process of numbering or arranging numerically.

[8] Also written as *Meemaansaa* – it means determination, discrimination through inquiry and investigation. Loosely it means analysis.

[9] *Poorava* means that which is earlier and *Uttara* means that which comes later.

[10] Source: *The Wisdom of Meemaansaa* by K.P. Bahadur

[11] In Sanskrit Yoga is defined in these words; *Yoga Chita vriti nirodha.*

[12] Maharishi University of Management, Fairfield, Iowa

[13] Source: *The Untold Story of Hinduism* by Sastry Putcha. Sastry Putcha mentions that he used these coins while he was in India.

[14] Check section 2, chapter 10 for viewing an ancient seal showing Shiva in yogic posture.

[15] Lost teachings of Yoga, Georg Feurstein

[16] Veda Vyasa as mentioned in the chapter on 'The Epics' was the grandfather of the Kurus and the Pandavas.

[17] *Brahm Sutra* has 555 *sutra.*

[18] Alternately many people spell it as *Brahman.*

[19] This idea is expressed in this sutra – '*Aham Brahmasmi*' which means 'I am Brahman'.

[20] *Advaita* means non-duality.

[21] More about Shankara and Ramanuja will be discussed in the section about the History of Southern India.

[22] *Ashrams* are four phases of life—the first phase is of childhood and education, the second of married life with responsibilities of raising families according to the morals and values of society, the third phase begins with changes in the physical body, tending to old age—it is called *vanprastha ashram*—when a person gradually learns to get detached. The last one is the phase in which a persons does social deeds and leads the simple life of a hermit.

[23] President Bush's speech dated March 3rd, 2006 in Delhi, India (Italics mine)

Chapter 26

The Contributions of Ancient India to the Civilization of Mankind

Several centuries ago, many visitors from various countries such as Alberuni, Fa-Hien and Hiuen-Tsang wrote that Indians were considered the leading medical practitioners, researchers and educators in the Middle East, China, Japan, and other parts of Asia. The Indian experts enjoyed prestige and high reputations in many countries, as is evidenced by the manner in which they were treated. Indian concepts and discoveries in the fields of mathematics, metallurgy, agriculture, medicine, shipping and trade, arts, language, literature, culture, music, drama and philosophy spread to other parts of the world. *India was to pan-Asia what Greece was to Europe – the mother of civilization.* This chapter will focus on the contributions of Indian civilization to the progress of mankind.

Archeological Marvels

General Features of Early Architecture

Indian architecture has a large variety and continuity of theme, from simple structures belonging to the fifth millennia B.C. to the more complex and elaborated structures in the first millennia A.D. Durability and aesthetics formed the main features of simple structures from Indus-Sarasvati times. Sun dried and baked bricks of clay and terra-cotta were used. Multistoried buildings were made for common people. The castles and citadels were made with the stones wedged into each other.

The plinth of the building was always raised. Artisans used decorative styles and expressed their creativity in various ways. Each region used the locally available material. For example, in Bengal, Odisha and the Northeast, woven bamboo was used to build walls and thatch to make roofs. In central India and parts of the southern regions, stone and terra-cotta tiles were

used. In many villages of Punjab and Uttar Pradesh, clay mixed with cow dung and thatch was used to make the walls and the roof. Additions were easily made to these houses with the expansion in the family. The upper class houses were built with stone slabs, the interior clay walls were painted with white lime, and delicately carved pillars and thick beams supported the roof. The roof was made of half cylinder tiles or baked bricks. Many houses had flat roofs with a brick fence around it. This terrace type roof was used for outdoor activities in the day time. During the summer time, sleeping on the terrace has been an ancient practice. The use of such material keeps the houses cool in summer and warm in winter.

Temple Architecture

The cave temples with painted walls and dark corridors are still found all over the country. The painted walls of the caves at Bhimbetka in Madhya Pradesh are one such example. The famous Ajanta and Ellora cave temples complex in modern day Maharashtra and, Khandagiri and Udaigiri cave temples[1] in Odisha are marvels of structured cave temples in India.

In the high foothills of western Himalayas at Amarnath, one finds the cave temple with a *Shivalinga* of ice. Another ancient cave temple in a remote part of the Himalayas is dedicated to the seer Vyasa who wrote the *Mahabharata* at this site. It is located in Uttarkashi district, in the state of Uttaranchal.

The inscription on the top of the entrance is in Sanskrit. It gives the location of the cave and tells us that Vyasa offered prayers to the Supreme Being, to *Devi* Saraswati, Brahman and other expert seers before writing the *Mahabharata*.[2] It seems that the date shown at the entrance might have been added later on.

Structured Temples

The most creative period of structured architecture started around the fifth century B.C. when the royal patronage was given to the artists of different faith traditions. Around this period, distinct art styles emerged with the construction of Buddhist *Stupas*, *Viharas* and *Chaityas*. The *Stupas* are D shaped structures with railings, gateways and pathways for circumambulation. The *Viharas* were residential buildings for monks and the *Chaityas* were used for offering prayers. Sarnath temple complex in Uttar Pradesh though partly destroyed, speaks of the richness of the Buddhist architectural tradition.

The common features of a Hindu temple are richly sculpted pillars, pyramidal spire, gooseberry shaped top spiral and pot shaped top. *Mandapa* (open auditorium) is a pillared pavilion. The walls and columns on the inside and outside of the structure have richly carved floral designs, dancers in various poses, musicians playing different instruments, rows upon rows of animals and scenes from the epics and Puranik legends. The mixture of reality and allegory is subtle, and conveys powerful messages.

The most intricate designs with ornate pillars and elaborate sculpture emerged in the first century B.C. when temples were built with royal patronage. The temples from each region are unique in style and intricacy. The artists used the locally available material, showing their skills, sense of aesthetics and their attention to detail. For example, in the central regions of the Indian subcontinent, marble was used for the sculpted forms of the Divine whereas in many other parts of the subcontinent red sandstone, soapstone, granite and rocks were used. In some other parts of India, rocks were cut to form monolithic structures with sculpted panels using various themes from the epics (the *Mahabharata* and the *Ramayana*) as well as from the Buddhist oral traditions and textual references.

Kushana rulers patronized temple building with their favorite *Deva*[3] or deity installed in the central part of the temple. The carved figures showed the effect of Central Asian influence. Later, this style came to be known as the Gandhara School of Art.

In the east and the central regions, more elaborate structures were built. Carved pillars, floral designs and pictures of animals and birds on the panels, painted ceilings, ornate edgings leading to the outer verandah and the courtyard were the important features of these temples. Roofs of the temples had drains on all four sides. These drains were connected to vertical leaders. This style came to be known as the Mathura School of Art. The Sun temple at Konark in Odisha is one of the finest examples of the Mathura School of Art.

Rock cut temples

Rock cut temples of Ellora[4] and Ajanta began to be built as early as the first century B.C. The Ajanta caves were initially inspired by the idea that Buddha meditated in the caves. They cut out rock to form caves — a place for worship of Buddha. Adjacent to each cave are small assembly halls. The walls of the caves have paintings and the etched panels, depicting Buddhist and Hindu stories. There are some 22 caves left now. From a distance, the caves look like a horse shoe. People from all over the world

visit these caves. A large statute of Buddha with an enigmatic smile fascinates artists. From every angle, Buddha seems to be smiling at the onlooker.

Shiva temples of Haridwar

The legend that the river Ganges first fell over the head of Shiva and the water was slowly released by Shiva is the theme of many of the temples in Haridwar and other places north of Haridwar, all the way to Gangotri. The evening prayer simultaneously sung in every temple at Haridwar is an emotional experience. Numerous temples dedicated to Shiva and the Ganges vary in style and design.

Zoroastrian temples with carved panels add to the diversity of the temple architecture.[5]

Most of the temples north of the Vindhya Mountains were destroyed during the Turk and Arab invasions towards the end of the first millennia A.D. For example, part of the Sarnath *Vihara* was destroyed by Akbar to make a monument in memory of his father Humayun. Babar's mausoleum was constructed after destroying Rama temples at Ayodhya. The material (the sculpted figurines of *Devas*) was used for the foundation and the walls. There was a Vishnu temple near the Iron Pillar of Delhi. The temple was destroyed by Kutbuddin Aibak. The material was used to construct the walls of the Qutab Minar at the site.

All over the country, there are temples dedicated to Vishnu, Shiva, Ganesha, Rama, Krishna, the Sun, Buddha, the Jaina *Tirthankaras* and many other eminent saints. Common features of these temples are the long vestibules coming from four directions and leading to the main sanctum where the divine form is seated or standing. The complex has an open courtyard where the artists perform musical or dance recitals. The four entrances in the form of gateways are called *gopuras*.

Vastukala and Architecture

Vastukala also known as *Sthapatya Veda* is considered to be one of the *Upavedas*. "*Vastu Sastra* is a Sanskrit word. *Vastu* means dwelling and *Sastra* means treatise or book. Hence *Vastu Sastra* means a book on dwellings. Do's and don'ts, of *Vastu Sastra* are explained logically and in a scientific way in the ancient literature. So we can also call it the science of dwelling."[6]

Living in harmony with nature is the theme of *Vastu Sastra*. The knowledge of *Vastu Sastra* is considered important for the construction of houses, temple, villages, towns, and cities.[7] *Vastu Sastra* is a voluminous

and scattered ancient Hindu literature dealing with the knowledge of architecture and the arts relating to the structures and buildings. It comprises independent works classified under the general heading of *Vastu Sastra*. It is an ancient Indian practice to construct buildings in harmony with the natural forces for the well-being of humanity as a whole. It is a rich Hindu philosophy which finds reference in a number of ancient works such as the *Vedas*, the epics, *Puranas* and Buddhist literature. The word *Vastu* has been derived from *vastoshpati* used in *Rig Veda*. It means building a place to live that will provide protection, happiness and prosperity in life. Ancient seers were aware of the effects of the vibratory forces of nature hidden in one's house and its surroundings. "Many of the ancient temples stand as living monuments of the awe inspiring majesty and inspiration emanating from these magnificent houses of worship built according to *Vastu Sastra*."[8]

The building of a house begins with a prayer: "Oh God of structures and buildings, we are your devotees. Listen to our prayers, make us free of diseases, give wealth and prosperity, and help the well-being of all persons and animals living in the house."[9]

There were a number of acknowledged experts on *Vastu Sastra* in the ancient times. The *Matsya Purana* refers to eighteen experts and instructors in *Vastu*. Of these the most known and worshipped are Maya and Vishvakarma. Even today, millions of construction workers and artisans from various crafts offer prayers to Vishvakarma on the day after Diwali. It is the New Year for the business community. Readers may be fascinated by some of the important guidelines given in *Vastu Sastra*. For example about the shape of the plot, it says, it is preferable to have a rectangular or a square plot. It should have a downward slope towards the east. The bedrooms should be so laid down that they face the north or the east. Kitchen (fire) should be built in the southeast.

The guidelines for architecture detailed in the *Vastu Sastra* are so scientific that more and more people (even in America) prefer to have their houses constructed according to it.

Samarangana Sutradhar one of the best books on the subject was written by King Bhoja of Paramara Dynasty.[10]

Arts and Crafts

India speaks most vividly through the craftsmanship of its people. Intricately designed sculpted panels, woodwork carving, inlay work both on wood and marble, delicate carving of sandalwood, bronze and five-metal sculpted figurines, terra-cotta and soapstone figurines, hand-woven

textiles using silk, cotton, linen and jute are fascinating. Cane work, decorated musical instruments, calligraphy on stone and rock inscriptions, speak volumes of the aesthetics and the skills of Indian artisans. Even simple earthen pots used for storing water and churning butter had multicolored floral carvings. Exotic hand-embroidered fabrics and tapestries woven with gold or silver designs attracted buyers from all over the world. The woolen shawls and rugs display the excellence of Indian weaving in texture and design. According to Muthu, "Europe looked upon Hindus as experts in almost every line of manufacture — woodwork, ivory work, metal work, bleaching, dyeing, tanning, soap making, glass blowing, fireworks, cement etc."[11]

The Sanskrit word for arts and crafts is *shilpa* — which means work of skill, design, decoration and art. Artisans have always been proud of their work. Even today these arts and crafts continue to enthrall shoppers from all over the world.

Bead making and setting the beads in metal plates or making necklaces and bracelets by stringing beads through silver wires is an ancient art in India. Excavations since the thirties of the last century have yielded these ornaments near burial grounds.

The Mahurjhari excavation already holds a significant place in archeology as the largest bead-manufacturing center ever known to belong to the early historic period. Later, the ornaments were made by setting semiprecious stones in the metal plates.

Astronomy and Calculation of Time

Indian astronomers have been mapping the sky for over five millennia. The constellations of planets in relation to the moon and the sun find numerous references in post-Vedic literature. Ancient Indians were able to predict the solar and lunar eclipses as can be seen in the pages of the *Mahabharata*. For example, Vyasa predicted three eclipses in one month before the beginning of the war.

Some notable books on the subject are *Vedanga Jyotisha*, *Surya Siddhanta*, *Bhrigu Samhita*, and *Jyotisha Sastra*. Indian astronomers knew about the shape of the earth, its orbit, orbits of other planets and gravitational forces of the planets. Readers may refer to the chapters about the Epic Age and the Gupta period to find details about astronomy and Arybhata's contribution in the field of astronomy.

To perform religious ceremonies on auspicious days, it was necessary for Vedic and the post-Vedic Indians to calculate the position of the moon in relation to the fixed stars. The system of dividing the moon's cycle was devised. Each of the days known as *Tithis* (*nakshatra*) has a name. This has helped modern skygraphers to recreate the position of the moon and the constellations of the stars as described in the epics and the other post-Vedic texts.

What is a Nakshatra?

A *nakshatra*[12] or lunar mansion is 27- 28 divisions of the sky, identified by the prominent star(s) in each constellation. The orbit of the moon around the earth (moon's monthly cycle) is 27.3 days, so the moon takes approximately one day to pass through each *nakshatra*. The list of *Nakshatras* is found in the Vedic texts – *Atharva Veda, Taittiriya Samhita* and also in the *Satapatha Brahmana*. The *Nakshatras* are mentioned in the *Vedanga Jyotisha* written by Lagadha. This book is considered to be the first text on astronomy.

The research and teaching of mathematics and astronomy survived in the School of Mathematics at Kusumapura, popularly known as Pataliputra (in Bihar), from first century B.C. to the end of the fifth century A.D. The famous Jaina saint Bhadrabahu (author of two astronomical works, a commentary on the *Suryaprajnapti* and the *Bhadrabahavi Samhita*) lived at Kusumapura.

Two other important and well-known centers of mathematical studies in ancient India were Ujjain and Mysore. The Ujjain school included the greatest of Indian astronomers, Brahmagupta and the mathematician Bhaskaracarya. The famous astronomer Mahaviracharya belonged to the southern school of Mysore. From 11th century onwards, turmoil prevailed in northern India because of the continuous invasion and plunder by the Turks and the Arabs. As a result most astronomers and mathematicians moved to the south. Kerala and Mysore became the new centers for mathematical and astronomical studies.

Knowledge of astronomy, particularly knowledge of the tides and the stars, was of great importance to trading communities who crossed oceans or deserts at night. This is borne out by numerous references in the *Jataka* tales and several other folktales. A young person who wished to embark on a commercial venture was inevitably required to first gain some grounding in astronomy.

Buildings and Town Planning – Civil Engineering

Drainage systems for water (open and covered drains), irrigation systems, river dams, water storage tanks cut out of rock, moats, middle-class homes with private bathrooms and drainage, and even a dockyard testify to the engineering skills of the ancient Indians. There is evidence of stairs for multistoried buildings. Many towns had separate citadels, upper and lower towns, and fortified sections. There were separate workers' quarters near copper furnaces. The granaries had ducts and platforms.

Cities

The earliest cities were built on the banks of rivers. About 2,000 sites of the old cities have been excavated in the Sarasvati Basin. Some of the major cities were on the confluence of two or more rivers. Kurukshetra was at the confluence of Sarasvati and Drishadvati rivers — both desiccated long ago. Kurukshetra is still a flourishing town. Pataliputra was at the confluence of the rivers Sone, Ganga and the Gandak.

Rivers provided natural security to the cities from two to three sides. The remaining sides of the cities were secured by large gates and drawbridges over the moats.[13]

Buildings were made of wood. Many houses had carved wooden pillars to support the roof.

Open courtyards were an essential part of houses. There were two to three story houses for royalty and the court officials. There were terraces and balconies. The concept of a basement was also known to the builders of these ancient cities. In the books of the *Mahabharata* one finds Sanskrit words such as *Shikher* (top part), *bhugarbh* (basement) and *attalikas* (balconies) on the higher floors.

Recently several habitational sites have been discovered in Vidarbha region. Evidence of habitation is beneath the structure with several floors, storage bins and a hearth. The successive floor levels show continuous sedentary occupation. There are remains of the house walls singed in fire. These sites belong to the Chalcolithic time period. This means that even in that remote period, multi-storied houses were built.

Conservation of Water Resources

Procuring and conserving water was one of the most serious problems of India. India has several river systems all over the subcontinent. Irrigation of fields throughout the year needed reservoirs, ponds and artificial lakes

to store extra water from the rainy season. In ancient India, every village had ponds and wells. These were designed to collect the maximum amount of rainwater to store water for use in irrigation and to drink until the next rainfall. In this way, the villagers could manage when there was no rain. The maintenance of these ponds was under the village *Panchayats*. However, under the Muslim and British rule, these *Panchayats* were deprived of their powers and resources and many ponds went into disuse. Today, satellite pictures have shown that there were at one time as many as 1.2 million such ponds in India. Some of these were massive man-made lakes. This indigenous system was far superior to the modern massive dams that are centrally managed and are ecological disasters in many cases. In parts of Tamil Nadu and Rajasthan, where these old ponds have been found and dredged, villagers do not face scarcity of water.

In Gujarat, Chandragupta built the Sudarshan Lake. Later, his grandson repaired it. Raja Bhoja[14] Lake built in 1014-1053 A.D. is so massive that it still shows up in the satellite images.

Irrigation systems found around the region of Vidisha show a resemblance to the rock-cut reservoir technology of Dholavira.

Finally, what historians have called the "Persian Wheel" was invented in India and was actually used much before the arrival of the Persians in India. These wheels were known as *Agarhats*.

Thus, dams, canals, reservoirs, village lakes and pipelines assured free-flowing water for irrigational purposes.

For Dance and Drama review section 3, chapter 29.

Civic System and Democracy in Ancient India[15]

Democratic institutions are shaped by the spirit of tolerance and freedom of thought. A unique feature of Hindu belief system is that while the Hindus worship God and call Him by different names at the same time they revere everyone else's understanding of God as well. This is the foundation of secularism and democracy. These attitudes and beliefs have been the foundation of what the modern day political scientists call limited monarchy. The discussion of democratic institutions in ancient India means covering the time frame of about 4,500 years of known history. It also means that the codes and rules in general usage unified India from the ancient times in spite of the existence of various kingdoms in the country. *Dharma* and culture were and are the unifying factors.

The codified laws for government were given in the *Smritis*. "The *Smriti* of Yajnavalkya gives a list of twenty sages as lawgivers, 'Manu, Atri, Vishnu, Harita, Yajnavalkya, Usanas, Angiras, Yama, Apastamba, Samvarta, Katyayana, Brihaspati, Parasara, Vyasa, Sankha, Likhita, Daksha, Gautama, Satatapa and Vashishtha, these are the propounders of the *Dharma Sastras*."

The tradition of codification continued all through the period from around 1,000 B.C. to 1,500 A.D. The documents such as Chanakya's *Artha Sastra* written during Chandragupta Maurya's rule (around 320 B.C.) and *Todarananda* written by Todarmal during the period of Akbar (16th century) reveal the continuation of that tradition.

Legislature

Laws were interpreted and analyzed by universities and followed by kings. From time to time, these laws were also examined and commentaries written about these by various seers. There is no evidence of general acceptance of the despotic kings or of the Divine rights of the kings. Autocratic kings (such as Ravana and Kansa) were vanquished and the original political values reestablished. *Dharma*—the righteous conduct was the law of the land.

Administration: There was a separation between religious institutions and the State.

There was a Brahmin priest and many other advisors to help the kings to run the administration. These advisors were from different castes. The king and his advisors together selected the chief minister. The general public had an access to the king.

Judiciary

The King's court was presided over by the Chief Judge, who dispensed justice with the help of counselors and the assessors. There were three other courts of a popular character called Puga, Sreni and Kula. People's tribunals, though not constituted by the king, were a part of the regular administration of justice and their authority was fully recognized.[16]

Institutional Framework

The *Ganarajya* or *Jana raj* meant that the advisors were elected from the local citizens for the kingdom and made up the Rajya Sabha , king's assembly. At the local levels, there were councils, committees and tribunals. Corporate life was in vogue in India since the Vedic times. The word *gana* meant community and the head of the group or corporate body was known as *'Ganapati'*.

In the rural areas, there were five elected heads looking after the safety of the villagers, settling disputes, ensuring harmony, supervising the usage of correct weights etc. This Panchayat System prevails even today. Republican practices and monarchy existed simultaneously.

Chanakya's contributions to the art of good government were immense.[17] In order for the country to run smoothly Chanakya[18] created a network of administrators. Some of them were in charge of espionage to gather information about the will and opinions of the people. He had no respect for an autocratic king. He believed that an autocrat weakens the country because he loses people's support. Secondly he creates anarchy. He wrote,"It is better not to have any government than to have one of a bad ruler."[19]

Literary evidence suggests that there was a workable administration at the local levels. Under the Panchayat System, there was *Gramani*—chief official at the village level. A collection of many villages (*gramas*) became a *Jana*. A unit in between was a small state with a head more like a governor called *Vispatui*.[20] Thus, it is evident that power was divided and various institutions respected the working of the lower levels of administration and authority.[21]

Dress Styles, Jewelry and Fashions

Dhoti for men and saris for women is the oldest dress style in the world. Three yards of muslin (very fine cotton fabric) or silk was used by men to wear loosely around the waist and another two yards were tied around the waist. There were different styles of wearing and wrapping the material. Six yards of material — cotton or silk was used by women and worn in a variety of ways. These dress styles and fabrics are the oldest continuous part of world fashions. It may be remembered that outfits and fashions depend on the weather system of a country. In different regions of India the style of wearing a sari is different. For example in Maharashtra, the length of a sari is 9 yards.

It is said that there were 36 kinds of ornaments used by women during the Vedic era. It was believed that each had an effect on the body functioning. The names of many of these are not common and most of these ornaments are not in use these days.

Even today a wide variety of ornaments are used by women. These are bracelets, earrings, necklaces, bangles, headbands, rings, anklets, toe rings, hairclips, upper arm bands, waist bands etc. India's per capita use of gold for ornaments is the highest in the world.

Economic Organizations and Guilds in Ancient India

Indian economy all through the millennia after the *Mahabharata* war flourished in various ways. The manufacturing of steel weapons, tools, textiles, woodwork, construction material and ornaments enriched the kingdoms and provided basic amenities of life to the people. *Varna* system provided an efficient economic system in which there was specialization of labor and everyone was gainfully employed. Observing the ethical mandates of warfare, the warring kingdoms did not destroy the economy of the enemies. Revenue came from agricultural tax, excises and taxes on trade.

Many professions and occupations are mentioned in the *Mahabharata*. The workers specializing in each profession were organized into what we today call trade unions or industrial unions. These guilds were known as *srenis*.

Kautilya's *Artha Sastra* gives a clear idea about the formation and functions of the guilds.

> "In an ideal scheme of a city, sites were reserved for offices and quarters of the guildsmen. Taxes paid by guilds formed an important source of income to the state. Guilds of a cooperative nature were referred to as *Samutthachara*. These guilds supervised community projects of those times. The local interest was guarded by the elders of the guild. Various undertakings of the guilds helped amass huge fortunes and Kautilya prescribes methods of extracting money from these guilds in times of need by the state."[22]

These guilds played an important role in the life of the community and were the backbone of the royal militia. They were loyal to their kingdoms. Guilds arranged wrestling matches and athletic games.

Each guild had an elder, a treasurer and a superintendent of accounts (*karanika*) who made regular entries in prescribed registers. The history, customs, professions and transactions of corporations were clearly detailed and noted in the registers. Various rules and regulations were laid down for the workmen. Representatives of the guilds were important members in royal meetings.

One of the most important functions of the guilds was to train apprentices for different crafts. They provided vocational education to the young students in crafts such as spinning, weaving, oil-crushing, shipbuilding, mining and other industries. The rich guilds maintained armies accompanied trade caravans.

> "*Srenibala* or *Ayudha srenis* (guilds of arms) existed. Mandasore inscription of Kumaragupta (414-455 A.D.) refers to a guild of silk-weavers. Some members of this guild took to arms. Some were bankers, some supervised endowments and some patronized art and religion. The guilds also acted as courts of law, disputes among members were settled by their own (elected) executives and not by State tribunals."[23]

This only shows that there was mobility and flexibility in vocations. According to R.C. Majumdar,

> "The guild in ancient India was not merely the means for the development of arts and crafts. Through autonomy and freedom accorded to it by the law of the land, it became a center of strength and abode of liberal culture and progress, which truly made it a power and ornament of the society".

Education

General Education

Education in Ancient India concentrated on the total development of the students. It therefore included, courses related to intellect, physique, character, virtues, duties, languages and development of other talents. Subjects as diverse as science, mathematics, grammar, music, language and literature were taught. Students were encouraged to be thrifty and self-sufficient. Developing self-control and respecting elders was part of the education.

Gurukula System

Gurukula literally means a teacher's family. Students from the cities and the nearby villages came to learn various subjects and skills from the teacher and lived with him as part of his family till their education ended.

Ancient Universities of India

There were several famous ancient universities besides *Gurukulas* and *Mathas* for school children. The most reputed universities were Takshashila, Nalanda, Vikramshila, Nawadwip, Kashi, Kanchi, Vallabhi, Gunasheela, Jagaddal, Mithila, Odantapura and Ratnagiri. There must be many more which are not mentioned in the available records. Of these universities, Takshashila[24] is recently proven to be the most ancient. During the Nanda rule, Takshashila city was a part of the Gandhara kingdom. Later it came under the control of Kaikayee rulers. Luminaries like Panini and Vararuchi were students in this university. It is also known that the famous scholar

Kautilya, advisor to Chandragupta Maurya studied there and so did many Buddhist scholars.[25] Minimum age for entrance to the university was 16 years.

University at Nalanda

Nalanda University — one of the largest at that time flourished for almost 800 years — from 500 to 1300 A.D. It was situated in the modern day state of Bihar, the ancient Magadha kingdom. It was considered a lighthouse of wisdom and learning. Nalanda was maintained by the revenue from seven villages granted by the king for the purpose.

Nalanda University had a campus one mile in length and a half mile in width. There was a huge library called Dharma Gunj (mountain of knowledge). It had three wings — bearing the names Ratna-Sagara, Ratna-Nidhi and Ratna-Ranjana. One of these was nine stories high. Nalanda was graced by the presence of India's most brilliant philosophers — Hindu and Buddhist. Some of them were Nagarjuna, Aryadeva, Dharmapala, Silabhadra, Santarakshita, Kamalaseela, Bhaviveka, Dignaga, Dharmakeerty etc. The works they left behind are mostly available through Tibetan and Chinese translations. Xuanzang (Hiuen-Tsang) was a student at Nalanda. He subsequently became a teacher at this ancient university (*Mahavihara*). In his writings, he has given a vivid account of the life at this great center of learning in the 7th century A.D. Students from the foreign lands such as Tibet, China, Japan, Korea, Sumatra, Java and Sri Lanka came here for higher learning.

The standard required for admission was very high. Admission to Nalanda was by oral examination. This was done by a professor at the entrance hall. He was called *Dvara Pandita*. Proficiency in Sanskrit was necessary, as it was the medium of instruction. All Chinese monks on their way to India for higher studies in Buddhism had to go to Java and brush up their Sanskrit. Hiuen-tsang reports that of the foreign students only 20 per cent managed to pass the stiff examinations. Of the Indian students only 30 per cent managed to pass and gain admission. The caste, creed and nationality were no barriers in keeping with the Vedic traditions. This was a residential university. The original manuscripts perished when the Muslim invaders under Bakhtiar Khilji set fire to Nalanda and beheaded the monks in 1037 A.D.

Subjects offered for study

The university had a large student body and a large faculty.[26] A wide variety of courses was offered. To mention a few—the study of the doctrines of

18 Buddhist sects, study of secular subjects like science, medicine, astrology, fine-arts, literature, languages, commerce, administration and astronomy etc. The six systems of Hindu philosophy were also taught. The observatory of the university was situated in a very tall building. Lectures, debates and discussions were part of the educational curriculum. Hiuen-tsang states that 100 lectures were delivered there every day. A high standard of discipline and dedication were expected from the students and the faculty.

The excavated ruins of the ancient Nalanda University comprise 11 monasteries and 5 temples. The holy relics of Hiuen-tsang are currently kept at the Patna Museum.

Later, the Muslims carried the idea of universities to the West, and after that universities came up in the western world.

Vocational Education

Guilds helped young artisans in learning various crafts such as weaving, pottery making, jewelry setting, making metal tools, weapons, and wood work to name a few. However, each region of India developed its own designs for all these crafts. Painting and sculpture were also learned and the intricacies and fineness of such arts are reflected in various temple structures, rock carvings and frescoes.

For several millennia, the *Gurukula* tradition was continued by the expert teachers from various fields of discipline. In his treatise *Artha Sastra*, Kautilya mentions 19 famous teachers (*purvacarya* – teachers who lived before his time). The book gives a list of these teachers in chronological order[27] – estimated dates):

1. Manu (4,000 B.C.)
2. Brahaspati (near 4,000 B.C.)
3. Usanas (near 4,000 B.C.)
4. Bharadvaja (~3,500 B.C.)
5. Visalaksa (2,000 B.C.)
6. Parasara (1,450 B.C.)
7. Pisuna (1,450 B.C.)
8. Kaunapadanta (1,450 B.C.)
9. Vatavyadhi (1,400 B.C.)
10. Bahudantiputra (1,300 B.C.)
11. Katyayana (post 1,300 B.C.)

12. Kaninka Bharadvaja (1,200 B.C.)
13. Carayana (1,100 B.C.)
14. Gotamukha (1,000 B.C.)
15. Kinjalka (900 B.C.)
16. Paisunas (descendants of Pisuna) (800 B.C.)
17. Ambhiyas (600 B.C.)
18. Kautilya's *Guru* (425 B.C.)
19. Kautilya himself (400 B.C.)

Food and Nutrition

Indian cuisine aims at appealing to all our senses—it is aromatic, it has pleasing texture, it creates dishes of six taste groups. The six taste groups are sweet, salty, sour, bitter, pungent and astringent. Mostly, each meal is prepared using fresh ingredient. In a tropical climate, leftover food cannot be used unless it is refrigerated. Refrigeration is only a hundred years old. People have not given up the habit of preparing each meal afresh. Seasonal fruits and vegetables are preferred. The availability of numerous varieties of fruits and vegetables and grains all year long makes it possible for people to have a rich cuisine. Due to an abundant yield, food items had been available at cheap prices.

According to Sanjeev Kapoor, "India has a centuries-old tradition of culinary art and in Banaras itself there existed many scripts about the same, while countless other manuscripts disappeared over the years." "Our repertoire of food is so large that we can have each dish only once in a lifetime, if we try them all," he informed, maintaining that they are not repetitive.[28]

Indian culinary art varies from region to region. With subtle changes of mild to strong spices, a good cook can create a large variety of dishes-each with a distinct taste.

Household Items of Practical Use

Among the household items, potteries, jewelry, knives, silk and cotton fabrics, wooden furniture, jute mattresses and beds may be mentioned. The umbrella was invented in India not as a protection from the rain but as a sunshade. Made of bamboo and thick waterproof cotton, it was used by the rich and the poor.

Language and Grammar

Sanskrit being the oldest language of mankind, remained the language of the writers. For a greater part of ancient history, it was also the language of the masses. Simultaneously many other languages were used in different parts of the country. Later, Prakrit and Pali developed and became the languages of the masses. Yaska wrote *Nirukta* which analyzes roots and meanings of the Sanskrit words.

Languages

There are about 1600 dialects and 25 official languages in India today. Sanskrit is the oldest language of the subcontinent. The *Vedas*, written in Vedic Sanskrit, are dated by different scholars from 6500 B.C. to 4500 B.C. Sanskrit language must have evolved to its expressive capability prior to that.

Sanskrit language is comprised of 50 sounds and letters in its alphabet. It has 11,000 roots from which to make words. The English language has 5,00,000 words. Sanskrit language has 1700 *Dhatu* (root verbs), 80 *Upasargas* (suffixes, prefixes), and 20 *Pratyaya* (declensions)[29]. It is believed that Sanskrit has roughly 74,000,000 words.[30] In fact, using these rules and by adding prefixes and suffixes, Sanskrit can provide an infinite number of words whose meaning is completely determined by the grammatical process.

Sanskrit is the language of the *Vedas*. The classical works of literature written after 6th century used Panini's grammar.

Several languages spoken and written today in India have been derivatives of Sanskrit. Bengali, Gurumukhi, Gujarati, Marathi, Oriya and Hindi have been derived from Sanskrit. Languages of the South have been influenced by Sanskrit. These days, more and more people all over the world are learning Sanskrit. Recently, Washoe County of Nevada (USA) proclaimed January 12, 2008 as Sanskrit Day. The proclamation says that, "As Hinduism expands in the West, it is important that to understand Hinduism, one should have a working knowledge of Sanskrit."

Panini[31]

Panini was a student of Takshashila University (in the northwest province of the modern day Pakistan). He wrote the complete Grammar for Sanskrit language. The literature after Panini uses his *Ashthadhayi* (Sanskrit name of his work).

Scholars believe he lived in the 5th century B.C. Panini wrote elaborate rules and grammar for Sanskrit in about 4,000 *sutras*. This grammar is used

even today for learning Sanskrit. According to Sir Monier Williams,"The Panini grammar reflects the wondrous capacity of a human brain which, till today, no other country has been able to produce except India."

Panini's grammar for Sanskrit is highly systematized and technical. Using analytic approach, he gives "the concepts of the phoneme, the morpheme and the root, not recognized by Western linguists until some two millennia later. His rules have a reputation of perfection—that is, they are claimed to fully describe Sanskrit morphology, without any redundancy."[32] As a consequence, his grammar is condensed and brief. It reminds one of the contemporary "machine language" (as opposed to "human-readable" programming languages).

> "Panini uses metarules, transformations and recursions with such sophistication that his grammar has the computing power equivalent to that of a Turing machine. In this sense, Panini may, indeed, be considered the father of computing machines. His work was also the forerunner to modern formal-language theory. Paninian grammars have also been devised for non-Sanskrit languages."

Ingerman in his paper titled *Panini-Backus form* finds Panini's notation to be equivalent in its power to that of Backus — inventor of the Backus Normal Form.

Today, Panini's constructions can also be seen as comparable to modern definitions of a mathematical function. According to G. G. Joseph, "the algebraic nature of Indian mathematics arises as a consequence of the structure of the Sanskrit language."[33] Later languages such as Pali, Prakrit and Devanagari have continued to use some of these principles.

Literature

Vedas—later compiled and written by Veda Vyasa are the *oldest and the longest texts* of mankind. A great deal about the literary merit of the *Vedas* has been written in the previous chapters. The post-Vedic literature is vast and varied. The *Ramayana,* the *Mahabharata*, *Srimad Bhagvad Gita*, Patanjali's *Yoga Sutra*, *Bhagvad Purana*, and other *Puranas* belong to the post-Vedic period.

Dharma Sastras such as Gautama's *Nyaya Sastra*, Gemini's *Mimansa*, *Upanisads*, Kapila's *Sankhya* and Kannada's *Vaiseshika* belong to the *Sutra* period. The period from 3,000 B.C. to 1,000 B.C.[34] is known as the *Sutra* period. It may also be noted that more than 26 rhythm schemes are used in the Vedic hymns whereas most of the poetic endeavors in other languages have not gone beyond 4 to 6 rhythm schemes. Because of the

mathematically accurate rhythm schemes, most of the Vedic verses are preserved through oral rendition. Fifth century B.C. onwards we see the great literary works such as the Buddhist *Jatakas*, *Vinay Pataka*, *Panchatantra* (stories with morals), Pingla's *Chhanda Sutra* and Panini's *Ashthadhayi*.

The first millennia A.D. witnessed a period of great literary creativity. *Mricchakatikam (Clay Cart)* by Shudraka, several plays by Bhasa, *Alankara Sastra* and *Buddha-Charita-kavya* by Ashvaghosha, *Shakuntala, Raghuvansa, Meghaduta, Kumarsambhava* and several other dramas and epic poems by Kalidasa, *Harshcharita* and *Kadambani* by Bana, *Mudrarakshasa* by Vishakhadatta, *Mahaviracarita, Uttara Ramacarita* and *Malatimadhava* by Bhavabhuti are some of the literary achievements of Ancient India.[35]

Harsha Vardhana[36] was the last great Hindu Emperor to rule India.

He was also a man of letters. He wrote three books – *Ratnavali*, *Priyadarsika*, *Nagananda*.

Sanskrit Wisdom Literature

The most notable contribution of Ancient India is what came to be known as the wisdom sayings, maxims, aphorisms and gnomes. The Sanskrit word for these kinds of verses and maxims is *Subhashita*. These *Subhashitas* helped people conduct themselves properly and wisely by providing moral and ethical advice, instruction in worldly wisdom, and guiding them towards making righteous choices. Combining real life experiences with philosophy, these sayings have practical lessons for listeners.

Indian writers have mastered the art of gnomic poetry. Through the use of one-liners or lyrical verse they have excelled in expressing their thoughts with brevity and originality using metaphors and similes. Eloquently phrased, these maxims, proverbs and didactics continue to have a profound influence in shaping the normative behavior of the individuals and providing a moral framework for the society and its culture. Buddhists considered these *Subhashitas* to be the guides for *Dharma*. *Subhashitas* have been found in Sanskrit literature since the earliest times. These wise sayings occur in the *Rig Veda*, *Aitareya Brahmana*, the *Puranas*, the *Ramayana*, the *Mahabharata*, the *Upanisads* and several other *Dharma Sastras*. From time to time, these were composed by many authors who did not attach their names to these sayings. The amalgam of these maxims and gnomes became a free floating literature of oral traditions to be passed on from generation to generation. Many of these sayings are dateless and without a specific author. Consequently, anyone could borrow or use these in one's own literary work. For example, some of the wisdom sayings come from

Vibhishana's advice to Ravana (in the *Ramayana*), Bhishma's and Vidur's advice (in the *Mahabharata*) and several other *Shastras* dealing with social or political policy.[37] Thus, in the works of later writers such as Chanakya and Bhartrhari, sayings of earlier pundits of *Rajaniti* are used. Chanakya made several compilations of *Subhashitas*.[38]

In his epigraphs, Bhartrhari has shown amazing power to eloquently express the essential facts of life condensed in such short sentences that he merits a special place in the history of wisdom literature. He is credited with two works — *Niti-Vairagya* and *Sringara-Sataka*.

Many compilations were made of wisdom sayings in Pali and Prakrit languages. The Sangam period poets used Tamil language to create wisdom literature. Many maxims are so similar in content that it is apparent that the later poets drew their maxims from the same sources, that is, the *Mahabharata* and the *Dharma Sastras*.

The importance of Indian aphorisms, proverbs and maxims has a great historical and cultural importance for two reasons;

> "First, they are trustworthy witness to the social, political, ethical and religious ideals of Hindus among whom they originated and circulated and second, they have had a subtle and pervasive influence on popular public opinion and public morality."[39]

Through cultural interaction, friendly foreign relations with neighboring countries and the spread of Buddhism to other countries, Indian wisdom literature went to many countries. Some of these sayings were retained in Sanskrit and Pali while many were included in compilations in their own native languages.[40]

Mathematics[41]

Invention of Zero

The earliest written reference to zero (*Shunya* is found in the ancient Sanskrit texts and explained by Pingala in his *Chhandah Sutra* of the fourth century B.C. The first verse of *Isha Upanisada* says that infinity minus infinity is infinity. A later mathematician proved that X/0 = infinity, and infinity divided by any number remains infinity.[42] It was also laid down that any number (except infinity) divided by infinity is zero. Arithmetic operations (*Ganita*) such as addition, subtraction, multiplication, fractions, squares, cubes and roots are all enumerated in the *Narada Vishnu Purana*. This text is attributed to Veda Vyasa.

Zero and Indian Number System

Around 4th century B.C., zero was a part of the Indian number system. Between the 7th and the 11th century A.D. Indian numerals developed into their modern form, and along with the symbols denoting various mathematical functions (such as plus, minus, square root etc.) eventually became the foundation stones of modern mathematical notation. Modern methods of multiplication and addition emerged from the techniques described in the *Sulab Sutras.*

The concept of Geometry emerged about 4000 B.C. and these concepts[43] were used in the making of fire altars in square and rectangular shapes. The dams, temple structures and rock temples could not have been made without the knowledge of geometry and engineering skills.

Baudhayana's *Sulab Sutra*—a treatise (6th century B.C.) describes Pythagorean Theorem thus, "The area produced by the diagonal of a rectangle is equal to the sum of area produced by it on two sides. The chord which is stretched across the diagonal of a square produces an area of double the size."

Apastambha's Sutra provides the value for the square root of 2 that is accurate to the fifth decimal place. *Apastambha* also describes the techniques for the construction of fire altars in use since the Vedic era.

Aryabhata dealt with advanced astronomy and progressions.

Another leading mathematician was Bhaskaracharya (12th century A.D.). He came from a long line of mathematicians and was head of the astronomical observatory at Ujjain. He left several important mathematical texts including *Lilavati* and *Bijaganita.* He also wrote two texts on astronomy — *Surya Siddhanta* and *Siddhanta Shiromani.* He was the first to recognize that certain types of quadratic equations could have two solutions.

Thus, the journey that began thousands of years ago, led to the discoveries and propagation of new mathematical theories. This journey continues.

Contributions of Jains in the Field of Mathematics

Jaina mathematics played an important role in bridging the gap between 'ancient' Indian mathematics and the 'Classical period' which began with the discoveries by Aryabhata in the 4th century. According to the religious literature of the Jains, the knowledge of *Sankhyana* (that is, the science of numbers, which included arithmetic and astronomy) was considered to be one of the main accomplishments of the Jaina priests. "The only treatise

on arithmetic by a Jaina scholar, which is available at present, is the *Ganita-sara-samgraha* of Mahavira (850 A.D.). The author of the *Ganita-sara-samgraha* held that the great Mahavira, the founder of Jaina religion, was himself a mathematician."[44]

Most of the Jaina works on mathematics date from around 300 B.C. to 400 A.D. Jains developed the theory of numbers. They also classified all numbers into three sets: Enumerable, Innumerable and Infinite. Then they defined infinity by recognizing five different types of infinity — Infinite in *one* and *two directions*, infinite in *area*, infinite *everywhere* and infinite *perpetually*. This theory is quite incredible and was not realized in Europe until the late 19th century work of George Cantor. Indeed much of the Jaina theory of infinity is extremely advanced for the time in which it was conceived.

Jains developed several other concepts of algebra including the concept of permutations and combinations that resulted in the formation of an early *Pascal triangle*, called *Meru Prastara*, many centuries before Pascal himself 'invented' it.[45]

Several centuries before Newton, the Pingla School of Mathematics, discovered and used calculus. The earliest developments of the number system, imaginary numbers, solution of simultaneous equations and solutions of the quadratic equations were discovered and used during the Sutra period. The construction of fire altars of various shapes could not have been possible without advanced mathematical concepts. The Vedic people found the knowledge of geometry, trigonometry and *Ganita Sastra* (arithmetic) absolutely crucial for various activities. For example, before assessing the correct taxable area, local administrators were required to convert rectangular plots or triangular plots to squares of equivalent sizes and so on. This meant that an understanding of geometry and arithmetic was virtually essential for the revenue administrators.

The growth of trade and commerce, involved lending and borrowing. A proper understanding of both simple and compound interest was absolutely essential for correct computation of the principal and the interest due from various traders and manufacturers. Brahmagupta's description of negative numbers as debts and positive numbers as fortunes indicates a link between trade and the mathematical study. Disciplines such as Yoga, Music, and *Vedanta*, works of *Vyakarana* (Grammar), Aesthetics, and Dramatics etc. are all based on mathematics. Mathematics was thus brought into the service of both practical and ceremonial aspects of life.

Measurement of Time, Space and Objects

The longest measure of time in the history of mankind is known as *Kalpa*. It is equal to 4.32 billion years. The shortest measure of time in the early Indian texts is *Nimisha*, which is equal to half a second. Many scholars have found reference to 34,000th of a second as the shortest measure of time. In between these two numbers, there is a range of numbers going up to 10 to the power 53. Each of these numbers has a distinct name. Advancing time with the passage of each century is a linear measure of time. For a long time, Indians did not use a linear measure of time. Instead they used sixty yearly cycle. They assigned different names to each year in the cycle.

In *Surya Siddhanta*, Bhaskaracharya measured the time taken by the earth to orbit the sun to nine decimal places. His calculation of the solar year was 365.258756484 days. Modern calculation for the year equals to 365.2596 days.

The space distance was measured as a *Yojana* which is equal to seven miles.

Precise weights and measures were there to measure objects both as to their weight and length and breadth.[46]

Weights corresponding to the ratios of 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, and 500 have been identified, as have scales with decimal divisions.[47] A particularly notable characteristic of these weights and measures is their remarkable accuracy. A bronze rod marked in units of 0.367 inches points to the degree of precision required in those times. Such scales were especially important for ensuring proper implementation of the town planning rules. Proper urban planning required roads of fixed widths to run at right angles to each other, for the drains to be constructed of precise measurements, and for the homes to be constructed according to the specified guidelines.

Metallurgy

Iron Smelting and Copper based Alloys

Several metallic artifacts have been discovered in the Indus-Sarasvati region and the northern plains of India. Most of these are iron implements and tools. Many are alloys used for making studded ornaments. The use of copper based alloys and bronze prove that metallurgy was in an advanced stage about seven millennia ago.

A recent study by a French team of archeologists headed by J.F. Jarrige has found about 120 metallic objects at the two sites — Mehrgarh and Nausharo. These two sites in the Indus River valley are now in Pakistan. The team used C2RMF method to date the articles found during their excavations. According to their analysis, "The whole chronological sequence has been sampled, from the first metallic objects in Neolithic and Chalcolithic levels (7th to 4th mill. B.C.) to the Indus periods — (3rd mill. B.C. beginning of the 2nd)."[48]

The combined use of elemental analysis and metallographic examination on closely related metallic artifacts helped the team reconstruct the evolution of copper based alloys before and during the rise of the Indus Civilization for the first time in that region.

The first metallic objects were found near the excavated burial grounds. These were mostly ornaments. Hammering of unalloyed copper seems to be the only technique used to manufacture these small ornaments. These are dated around 7th millennia B.C. Weapons, chisels, axes and blades were found near habitational sites. The date of these objects is around 4th millennia B.C. Thus, it is clear that molding, casting and the use of copper-lead alloy indicate an advanced knowledge and skill of these ancient people.

Both the *Ramayana* and the *Mahabharata* mention the use of chariots in the battlefields. The use of chariots in military campaigns had to be fast moving vehicles. These chariots moved on wheels with iron axles. Composite wooden-bronze axles can work for a limited time, but these would break under the fast movement and pressure. Besides, unbreakable thick wooden axles would not make the chariot light and agile. Thus, iron must have been the only choice for making axles for the chariots used by the army.

In Naikund, India, archeologists have found a smelting furnace dated 800 B.C. The Deogarh temple in India (600 A.D.) has hundreds of iron objects. The famous iron pillar at Mehrauli near Delhi is considered a metallurgical marvel. It belongs to the Gupta period. To this day, it stands untarnished and rust-free in spite of being exposed to weather and natural forces for over 1,600 years.

Steel was an Indian invention, and remained an Indian specialty for centuries. The famous Damascus steel swords, now found in museums across Europe, were made from imported Indian steel. Before European colonialism, the smelting of iron in small charcoal furnaces was one of the major industries of India. Literary evidence confirms the presence of

copper and its use in the region of Vaisali in Magadha. The sign *sembiyan-kandiyur* means, the village of copper furnace, and this sign has been found in Vaisali.

Evidence from Sulab Sutras *about the Use of Iron*[49]

The Department of Archeology, Deccan College, Pune, India, has found 'habitational sites' of the late Chalcolithic (Copper Stone Age) and early Megalithic (Iron Age) period in Vidarbha region (modern day Madhya Pradesh).

Vidarbha has four habitational sites and 110 burial sites. The evidence found at these sites includes iron-age pottery in mica red, black on red, black on red painted and thin red. The excavated objects show chalcolithic pottery, stone implements as well as iron and copper objects.

The finds of clean-shaven faces of adults among the statues of the civilization testify to the ability of ancient people to create a sharp-edged metal razor for shaving. This clearly indicates an advanced stage of metallurgy in ancient times.

Literary evidence from the *Satapatha Brahmana* attests to the use of copper needles and a copper slaughter knife, during the performance of the *Asavamedha yajna*. Oldenberg also refers to the use of copper (*loha, loha yasa*) razor for shaving the head (known as tonsure ceremony).

In a recent talk, Nobel laureate Robert F. Curl said that carbon nanotechnology was much older than carbon-nano science. For the Damascus sword, Indians produced the raw material—mined iron ore and exported it. He said that up to the middle of the 18th century, the steel swords depended on this particular material and when the mines in India stopped, "they lost the technology". In 2006, when subjected to scrutiny by an electron microscope, the Damascus sword had shown to contain large amounts of nanotubes.[50]

According to Will Durant, Hindus seem to have been the first people to mine gold.[51] Greek visitors to India like Megasthenese have mentioned this in their records. Much of the gold used in the Persian Empire in the 5th century B.C. came from India. India also mined silver, copper, zinc, led, tin and iron.[52] Indians also knew the techniques for the isolation, distillation and use of zinc.

Naga punch-marked coins also testify to the existence of advanced technology in the field of metallurgy.

Military and Weapons

Invention of Weapons

"Guided Missile was first designed in ancient India about 5500 years ago."[53] *Astras*"[54] or missiles, have a semblance to present day missiles. According to the *Mahabharata* this missile was designed by Dronacharya.[55] It had a special feature, that it was guided by a sort of self-contained brain that led it to the intended target. It was given the name 'Narayan'. Dronacharya was known as a very great teacher with unequalled skill in the art of archery. He knew it would have devastating and catastrophic results if it fell in the wrong hands or was misused.

Besides bows and arrows, the swords, daggers, discs, shield, javelin (*bhala*), trident (*trishul*) and mace (*gada*) are also mentioned in both the *Ramayana* and the *Mahabharata*. The use of chariots, elephants, cavalry and foot soldiers made the four wings of the army. The game of chess has pieces corresponding to these four wings. The game was called *Chaturanga*, which the Persians called *Shatranj*. Armies were arranged in such mazes that the enemy would not be able to penetrate.

Megasthenese (around 320 B.C.) tells us that Calingae (Kalinga) possessed 60,000 foot soldiers, 1000 horsemen, and 7000 elephants while the Andhras king had an army of 1,00,000 infantry, 2,000 cavalry and 1,000 elephants. He also had numerous fortified villages and thirty towns defended by walls and towers. Anticipating a war with Alexander, the southern Indian kingdoms collected 7,000 war elephants.

Military Ethics and Rules of Warfare

The Indian subcontinent always had many kingdoms. Powerful dynasties ruled many of these kingdoms. At the same time, there were republics and confederations of republics. Numerous tribes lived autonomously and led their own simple life. Warfare and internecine bickering were common. The battles and wars were fought according to the rules laid down as the tenets of *Dharmayuddha*. Many parts of *Dharmayuddha* are now a part of the code of the International Red Cross. The rules of warfare were based on the time honored conventions sanctioned by the *Sastras*. Before the *Mahabharata* war, the Pandavas and the Kurus had a meeting presided by the oldest Kuru, Bhishma. They went over the rules to be observed during the war so that during the war there was no confusion and consequent violation of *Dharma*. With a very few exceptions, during the five millennia history up to 1,000 A.D., Hindu kings observed these conventions. A few

of these may be mentioned here. People engaged in trade and farming, the artisans, the manufacturers and those engaged in similar professions were never made a part of the military campaign. The battlefields were in the cleared forest areas or the barren land. The noncombatants were never killed or captured. A human habitation was never attacked unless it was a fort. The civilian population was never plundered. The warrior class (*Kshatriya*) who clashed, mostly in the open fields, had a code of honor. Brahmins and *Bhikshus* were never touched. The chastity of women was never violated. Cows were never killed and the temples were never touched.

Megasthenese an ambassador to the court of the Maurya king noticed these rules of Indian warfare. According to him,

> "Whereas among other nations it is usual in the contests of war to ravage the soil, and thus to reduce it to an uncultivated waste, among the Indians, on the contrary— by whom husbandmen, the tillers of the soil— even if a battle is raging in the neighborhood, are undisturbed by any sense of danger, for the combatants on either side, in waging the conflict, make carnage of each other but allow those engaged in husbandry to remain quite unmolested. Besides, they never ravage an enemy's land with fire nor cut down its trees."

Megasthenese visited India in 4th century B.C. Later on, many other visitors from China and Central Asia made similar observations. According to the Chinese pilgrim Hieun-Tsang, even though there were enough rivalries and wars in the 7th century A.D. the country at large was little injured by them. In fact, while the battles were going on, the neighboring cultivators could be seen quietly pursuing their work, ploughing the fields, gathering crops, pruning trees, or reaping the harvest.

For music review section 3, chapter 29. For Indian society, caste system (*Varna Ashrama*), review section 2, chapter 13.

Paintings and Frescoes

Recently 25,000 year old paintings have been found on the walls of the caves around Bhimbetka. Floral motifs and etchings of animals were made on earthenware even before the times of the *Mahabharata*.

Natural colors obtained from plants were used in the Ajanta cave paintings. The themes were chosen from various epics and the stories about legendary kings. In many temples, the ceilings were painted. Meenakshi temple in the southern state of Tamil Nadu shows fine intricate artistic skills of the painters and sculptors.

Sculpture

Clay toys, terra-cotta figurines in yogic postures, sculpted statue of the mother Goddess, and the bullock cart are fine samples of this art in the Indus-Sarasvati region.[56]

With the passage of time, Indian sculpture reached such heights that Indian sculptors could use any material to carve and mould into intricate designs and figures in various poses. As more and more temples were constructed all over the country, the sculptors used granite, marble, soapstone, sandstone, rocks and fieldstone. Often the natural colors were used to enhance the aesthetic effect. The walls, pillars and the pyramidal structures of the monuments were carved intricately. The panels depict stories of *Ramayana*, *Mahabharata*, legends from *Puranas* and the stories from *Panchatantra*. These carved panels are called friezes[57]. In many temples the ceilings are carved and painted. The frescoes[58] of Ajanta and south Indian temples show great workmanship in the use of indelible paints.

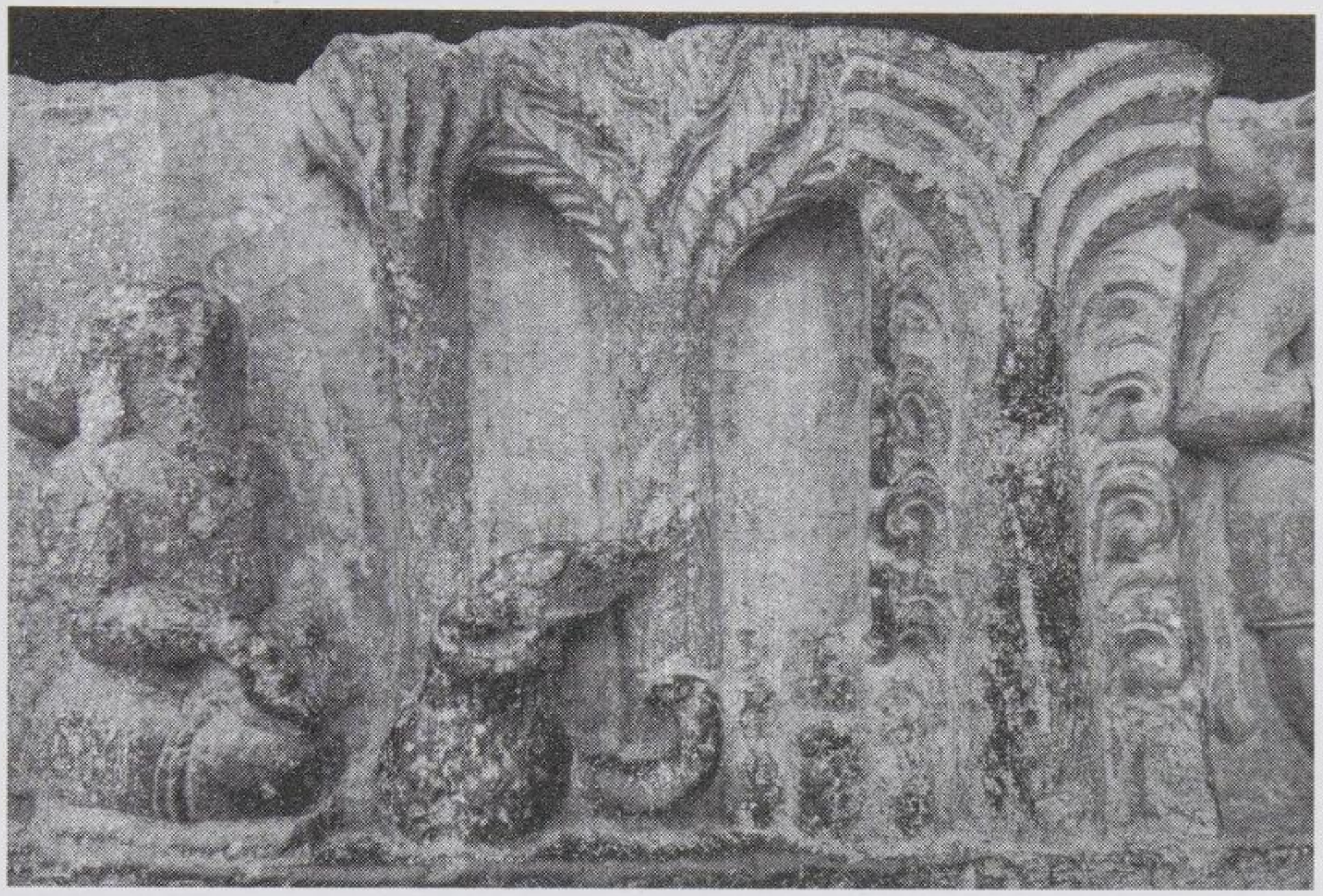
Sports

Sports and games such as polo, *pachisi*, chess and dice originated in India and were popular among both the common people as well as intellectuals. Chess has been a game of warfare. The four wings of the army were elephants, cavalry, chariots and footmen. The Queen and the Bishop had no role. The game as it originated had a minister and the army chief accompanying the king and protecting him from all sides.[59]

Story Telling

The oldest story found during excavations in the Indus valley is on a terra-cotta panel. It is the story of a crow and a fox. While growing up, almost every child in the world comes to learn this story. Numerous such stories with morals are narrated in the *Panchatantra*. *Panchatantra* is considered to be the greatest book of fables ever written. This is also the oldest book of fables. Some of these stories were later depicted on the walls of the ancient monuments and temples.

Here is a story carved on a soapstone panel in Hoysaleshvara temple in Halebid, Karnataka. This picture shows a saint in meditation. In front of him, there is a pot full of wine; a bird is taking a sip out of it. There is a serpent next to the pot. The moral of the story is that if a hermit takes a few sips of the wine, he soars like a bird (meaning, he reaches an exalted state) but if he drinks to the last drop, the same wine acts as poison.



This picture shows a saint in meditation

A story from *Panchatantra* has similes, allegories and morals all subtly fused in one short narrative.

Ship Building and Navigation

Many writers promoted the idea that Indians knew only coastal navigation. This idea is disproved by the growing evidence revealing that deep-sea shipping had existed in ancient India. Indian ships had been sailing to islands such as the Andaman, Lakshadweep and Maldives, around 2,000 years ago. Kautilya's books describe the times that are good and bad for seafaring. In the medieval period, Arab sailors purchased their boats in India. The Portuguese also continued to get their boats from India, and not from Europe. Ships were exported on a regular basis. Ship building was a major Indian industry, until the British banned it. The Greek, Roman, and the Southeast Asian archives have extensive material on the Indian Ocean trade.

Ship Building Material

Natural products such as resin, jute, turpentine, gum, rubber, cotton and a variety of sturdy wood were some of the products that helped India in ship building thousands of years ago. Without the technology to make non-rusting steel that India developed, the ships would not have been strong enough to navigate through the deep waters of the oceans. Special

varieties of cotton grown in western India helped weavers make waterproof tarpaulin. Jute twine was used for holding masts made of fine cotton.

Trade

Maritime Trade

On the basis of literary evidence, we can say that maritime trade flourished between India and the Arabian countries as well as Africa. Spices, gems, cotton and silks were the main items of export while gold was an import. Words such as *sindhu* (sea), *nau*, and *nouka* (boat) are found in the literature of Indus-Sarasvati people. The remains of docks and the warehouses near the west coast found during recent excavation in Dholavira provide us with the archeological evidence of sea trade in the remote past of India.

Southern India and the Sea

The western and the southern parts of India had a thriving trade with European countries such as Greece and Rome. The western traders used to visit ancient port cities such as Kalyan, Thana, Chaul, Kuda. These cities were on the Maharashtra-south India route. A large number of cave monasteries still exist on these trade routes.

The coins of Trojan (98-117 A.D.) and Hadrian (117-138 A.D.) have been found on the eastern coast of India. This suggests that Greek traders visited the port city of Arikamedu (near Pondicherry) and other adjacent ports as well.

Kerala maritime activity[60]

Recent archeological excavations at Pattanam in Ernakulum district of Kerala by the Kerala Council for Historical Research (KCHR) indicate that there was thriving naval trade around 500 B.C. According to the Director of KCHR, "The artifacts recovered from the excavation site suggest that Pattanam, with a hinterland port and a multicultural settlement, may have had links with the Mediterranean, the Red Sea, the Arabian Sea and the South China Sea rims since the Early Historic Period of South India." KCHR has been getting charcoal samples examined through C-14 and other modern methods to determine the age of these relics. These artifacts were from the Iron Age layer. The archeologists also recovered some parts of a wooden canoe and bollards (stakes used to secure canoes and boats) from a waterlogged area at the site.

The radiocarbon dating from Pattanam will aid in understanding the Iron Age chronology of Kerala. So far, testing done by C-14 method to determine the ages of the charcoal samples from the lowermost sand deposits in the trenches at Pattanam suggests that their calibrated dates range from 1300 B.C. to 200 B.C. and 2500 B.C. to 100 A.D. Thus there is strong evidence that Kerala had sea trade with several countries in Western Asia and Eastern Europe from second millennia B.C. onwards.

Other primary sources are coins, inscriptions and seals. Discoveries of these artifacts provide a great deal of information about the development of commerce along the coasts.

Seals found near Bhavnagar confirm this. Here are some excerpts from the report of the ASI[61] office:

> "Ancient seals found at Hatab excavation site[62] The Archaeological Survey of India (ASI) Vadodara circle, has unearthed 160 ancient seals, with the Brahmi script inscribed on them, from the Hatab excavation site, located some 20 km south of Bhavnagar. The seals are said to be 2000 years old and were probably used to stamp goods that were to be exported. "For the past one year, we have worked at the site and have dug up several artifacts. All of them suggest that Hatab might well be the ancient trading center, referred to as '*Ashtakapra*' in the ancient Greek work *Periplus* and which also finds a mention in historical records of ancient geographer and eminent astronomer Ptolemy," says the ASI superintending archeologist and director of excavations, Shubhra Pramanik.

During the ancient times it is said that this part of Gujarat had extensive trade links with Greece and other parts of the world. Kautilya's *Artha Sastra* also mentions the practice of collecting taxes from the ships sailing in the sea and rivers.

"The job of the '*Antapala*' (officer stationed at the border coast) was to collect taxes and also to control the quality of goods that were to be exported. The seals are a rare find and they must have been used to mark the goods that were exported," adds Pramanik. The seals are well-etched and are round and oblong in shape, almost similar to rubber stamps that are used today."[63]

Land Trade

There was trade between the kingdoms of India and Arabian countries and Rome over land routes. From time to time, fairs were held where the merchants from various countries traded goods. Spices, silks, metal objects,

wooden and ivory crafts, rugs and fabrics of all varieties were sold by the Indians. They bought horses, camels and gold. In the process of trade not only were items exchanged but the ideas and knowledge also passed on both ways. Perhaps that explains the similarity of some words in Indian and European languages.

Textile Technology

Four types of fabric and textile materials find their origin in India.

Silk, cotton, linen (from flex plant), and jute are natural fibers and these come from plants and trees. India had the best climate and the right topography to be able to grow all these plants. The blue dye (known as indigo) is a native plant of India. It is used for whitening the cotton textile and had been much needed by the rest of the cotton growing and cotton using world. It was only with the manufacture of synthetic dyes that the dependence of the world on indigo diminished.

Roman import of Indian muslin practically drained Rome of its gold coins. Gold coins of early Roman era have been found in several parts of Southern India. Roman records indicate that at some point the Roman senate banned the import of Indian muslin to stop the gold drain.

Silkworms need mulberry trees to grow on. The worms form cocoons that keep growing. The fine silk thread is made from layers of the cocoons. There have been many places in India where fine silk was hand woven and handspun. Silk fabric from each region is unique in texture and colors. The tradition of making fine silk has continued from ancient times. Despite the advent of machine made silk, the popularity of hand-woven fabrics continues to grow.

Chinese visitors from 4th century on must have taken mulberry plants with them. Silk became a major item in the trade between India, China and Europe. The trade routes acquired their name as silk routes from the silk trade.

Linen is another natural fiber used for making garments. It comes from the flex plant. Jute, another natural fiber is used for making waterproof mattresses and gunny bags. Jute rugs are also popular especially in the regions with a warm climate. Jute twine is used for weaving charpoys (wooden bed frames with woven jute twine in place of the mattress).

Development and Use of Writing Materials

Writing materials have played a very important role in the development of civilizations and shaping cultures. These have helped not only in preserving the history and culture of mankind, but have also deeply influenced the scripts, languages as well as mankind's attitudes.

Paper is a sixth century invention from China. It has been used in India only for about a thousand years. For several preceding millennia, the main writing materials in India were clay tablets, rock/stone inscriptions, birch-bark, palm-leaves and copperplates. Besides these, *agaru*-bark, bricks, pottery, shell, ivory, cloth, wood, etc. were also used as materials for writing. These ancient writing materials have served Indian literature and science. Today most of the inscribed materials from the past are in the custody of the museums, both Indian and foreign.

The early pictorial writing is mostly in the form of paintings. Prehistoric rock paintings have been discovered in India at Bhimbetka, Pachmarhi, Adamgarh, Mirzapur and many other sites. These paintings depict the day to day life of the cave dwellers. Though several thousand years old, the paintings show vivid details, mostly in red and white colors. The paints were made by mixing local minerals and with water and resin of some local tree. Resin is like a glue, which is a sap from local trees. It provides binding to the paints. The paint brushes were made of twigs. For making fine lines, quills were also used. Some of the rock paintings have short inscriptions in Brahmi script. Thus, it is evident that for thousands of years, in ancient India stone and natural paints were used as writing materials.

Technique Used for Rock Painting and Inscriptions on Stone

Before inscribing or engraving, the surface of the stone was chiseled and polished. A smooth surface was preferred but engraving on rough surface was also common. The letters were then written on the surface of the stone with ink or a piece of chalk or painted with brush. Finally, engraving was done on the painted letters. The engraving was then filled with a sticky material so that the painting or inscriptions could be long lasting. Besides stone and rocks, other writing materials were copper, bronze, gold, silver and iron, brick and baked clay tablets, bark of various trees, bone and ivory rods, pottery, wooden plaques and pillars. Wooden boards, called *phalaka*[64], were widely used for writing in ancient India. *Phalaka* is still used in many rural areas of India.

Fabrics have also been used for writing material, these are called scrolls. A rectangular piece of cotton or silk was parched with a thin layer of wheat or rice pulp. When dry, it was smoothed with stone.

The stone slabs or columns were used to record grants, deeds, royal eulogy, proclamations, and agreements between individuals or kings and even for literary works. For example, the *Kurmashataka*, a poetical work in Prakrit by the scholar king Bhoja of Dhara (Malwa) is engraved on stone slabs.

Though most of the ancient literature was passed on in oral renditions, some of the Vedic hymns must have been written. For example, the *Rishis* read the hymn or the *Rishi* saw the hymns suggest that there was a written form of the hymn. Thousands of years ago, the *Mahabharata* and the *Ramayana* were also written. In his *Ashtadhyayi*, Panini refers to words such as *granth* for a book and *lipikara* for the writer or a scribe. This makes it clear that during Panini's time, there were books and there were writers using various types of writing material. In Panini's grammar, writing was an essential element in the technical arrangement of his rules. Often, Panini used to ask the reader to 'see' other rules of his composition. It is, thus, certain that the grammatical work of Panini was available in the form of a manuscript. Much of the historical accounts of India are available from writings on the highly polished monolithic stone pillars. Some of the pillars[65] are 15 m high and weigh nearly 50 tons. These Asokan pillars can be seen in Delhi, Allahabad, Lumbini and several other sites.

There are also other kinds of pillars. There were *Dhwajastambha* (pillar with a flag on top), which often carried an inscription. These were erected in the courtyard of a temple. The *Jayastambha* had glorious accounts of victories by a king, inscribed on them. The *Kirtistambha* was erected to commemorate some pious deed. *Virastambha* was put up in memory of a warrior who died fighting the enemy.

Of all the varieties of metals, copper was the most commonly used material for writing in ancient India. The copperplates were known as *tamrapata, tamrapatra or tamrashasana*. Fa-Hien records the existence of copperplates in Buddhist monasteries dating back to the Buddha's time. Another Chinese pilgrim, Yuan Chwang (629-45 A.D.), mentions that King Kanishka got the sacred books of the Buddhist faith engraved on copperplates. One of the earliest copperplates, the *Sahgaura* plate, dates back to the Mauryan period.

Thousands of manuscripts written on palm-leaf are in private hands. Most of these still exist in Nepal and Tibet. A very popular material for

writing purposes in ancient India was birch-bark, called *Bhurja-patra* in Sanskrit. The birch is a moderate-sized tree that grows in the Himalayas at a height of nearly 14,000 feet. The inner bark of this tree was used for writing. Curtius, a Greek writer of Alexander's time mentions that the tender inner bark of the trees served the purpose of writing material. In his work *Kumarsambhava*, Kalidasa also mentions *bhurja-tvak*, birch-bark. According to Alberuni, "They (Hindus) use black tablets for the children in the schools and write upon them along the long side, not the broad side, writing with a white material from the left to the right". He also says that people in India use the bark of *Bhurja* for writing. A reed pen was used for writing on birch-bark leaves.

Many of the birch-bark manuscripts have been found in Kashmir and Odisha.[66]

Summary

In his article, 'Indic Mathematics: India and the Scientific Revolution' Dr. David Gray lists some of the most important developments in the history of mathematics that took place in India, summarizing the contributions of luminaries such as Aryabhata, Brahmagupta, Mahavira, Bhaskara and Maadhava. He concludes by asserting, "*the role played by India in the development* (of the scientific revolution in Europe) *is no mere footnote, easily and inconsequentially swept under the rug of Eurocentric bias. To do so is to distort history, and to deny India one of its greatest contributions to world civilization.*"

> The best summary of India's contribution to the civilization of mankind is given in this quote from Will Durant, "India, the motherland of our race and Sanskrit the mother of Europe's languages. She was the mother of our philosophy; mother, through the Arabs, of much of our Mathematics; mother through Buddha, of the ideals embodied in Christianity; mother, through the village community, of self government and democracy. Mother India is, in many ways, the mother of us all."

Lin Yutang, Chinese scholar and author, wrote that: "India was China's teacher in trigonometry, quadratic equations, grammar, phonetics..." and so forth. Francois Voltaire stated: "... everything has come down to us from the banks of the Ganges."

Referring to the above two quotes, David Osborn concludes thus, "From these statements we see that many renowned intellectuals believed that the Vedas provided the origin of scientific thought."

New Words to Learn

- Nano science – study of minute objects
- Nano technology – technology developed to study minute objects
- Nano tubes – the markings on the swords left when the metal is heated to required temperature and then quickly cooled. The speed of the thirst quenching leaves fine marks which can only be visible by using nano technology.

Concepts to Understand

1. Two thousand years before Pythagoras, astronomers in northern India had understood that gravitation held the solar system together, and that therefore the sun, the most massive object, had to be at its center.
2. Twenty-four centuries before Isaac Newton, *Rig Veda* asserted that gravitation held the universe together.
3. The Vedic Indians subscribed to the idea of a spherical earth in an era when the Greeks and other contemporary communities believed that the Earth was flat. They held on to this belief till the 15th century.
4. The Indians of the fifth century A.D. calculated the age of the earth as 4.3 billion years; scientists in the 19th century England were convinced it was 100 million years.
5. Vast and varied industries, natural resources and skilled artisans created immense wealth which was coveted by every invading group.
6. India provided the financial capital for the industrial revolution. More significantly, India provided essential elements of the scientific foundation without which humanity could not have entered this modern age of science and high technology.
7. Astronomers helped farmers by predicting the effect of seasonal changes. They also helped determine the auspicious time for various ceremonies.
8. India has been considered the cultural millionaire by many philosophers and scholars.
9. As observed by H.H. Wilson, "The Hindu laws of war are very chivalrous and humane, and prohibit the slaying of the unarmed, of women, of the old, and of the conquered."

Questions

1. What was Columbus looking for during his search for India?
2. How is the oral transmission of Ancient Indian mathematics, responsible for the loss of knowledge over time?
3. Vast and varied industries, natural resources and skilled artisans created immense wealth which was coveted by every invading group. List the natural resources which enabled industries to grow in India.
4. What were the exports of India during the last three thousand years prior to the start of British imperialism?
5. Why was Southern India the hub of foreign trade? Which countries did they trade with?
6. What are the natural resources needed for ship building?
7. Why is foreign trade regulated by the government? Compare the regulatory practices of modern governments with ancient Indian trade policy.
8. Why was mathematics given so much importance by the Vedic and the post-Vedic people? Discuss the fields in which mathematics was used in ancient India.
9. How was astronomy useful for farmers? Why did the priests need accurate astronomical predictions?
10. How did the astronomical data given in the *Mahabharata* and other ancient texts help historians in fixing the accurate chronology of Indian History?
11. Washoe County of Nevada has proclaimed January 12, 08 as Sanskrit Day. A proclamation signed by Robert M. Larkin, Chairman of Washoe County Commission, under the Seal of Washoe County, says, "PROCLAIMED, That Washoe County recognizes the importance of the Sanskrit language and January 12, 2008 as Sanskrit Day". Why is the knowledge of Sanskrit important for people living in the USA and other European countries?
12. Many writers refer to Indian agriculture as a gamble in monsoons, read the paragraph about conservation and irrigation and discuss if this myth had any evidence in ancient times.

Enrichment Activity

1. Dronacharya never divulged the secret of using the missile, he knew the devastating results it would have on humanity. There is a message for humanity bent upon stockpiling deadly weapons. What is the message?
2. By using examples from the World War II when the USA dropped two atom bombs on Hiroshima and Nagasaki, explain the immediate and long run effects of that incident.

Critical Thinking Activity

1. Read the following paragraph and discuss why the rice cultivation and the discovery of iron were important for the people in ancient times?

   ASI finds early discoveries of grain cultivation in the U.P.

   "UP is a very important place because of the Ganges River. It was in the Ganga Valley where traces of cultivation of rice and use of iron were found for the first time. The cultivation of rice is the greatest thing to have happened, while use of iron led to the industrial revolution."[67]

2. Learning to evaluate statements of eminent writers and reaching conclusions.

   Based on your reading of the chapter, discuss to what extent the following statements are true. Use examples from the chapter.

   a. Ella Wheeler Wilcox, (1850-1919), American poet and journalist, wrote "India – The land of Vedas, the remarkable works contain not only religious ideas for a perfect life, but also facts which science has proved true. Electricity, radium, electronics, airship, all were known to the seers who founded the Vedas."

   b. Dick Teresi, American author of *Lost Discoveries* mentioned "Some one thousand years before Aristotle, the Vedic Aryans asserted that the earth was round and circled the sun…."

   c. Colonel James Tod was a political agent to the Western Rajput State. About the rules of warfare, he remarked, "To spare a prostrate foe is the creed of the Hindu cavalier, and he carried all such maxims to excess."[68] Evaluate this statement, why did Tod think that Hindus carried military chivalry to extreme? Give examples of some of the rules that proved to be harmful for the kingdoms.

Important books to read for science and mathematics in India are:

Three volumes of *Contributions to History of Indian Science and Technology* published by Infinity Foundation Series, America and Rupa & Co. India.

Important Links

http://members.tripod.com/~INDIA_RESOURCE/mathematics.htm-used for notes

http://www.arianuova.org/arianuova.it/arianuova.it/Components/English/A24-Science.html

http://www-history.mcs.st-andrews.ac.uk/history/Projects/Pearce/index.html

Jaina contributions to Mathematics

http://www.infinityfoundation.com/mandala/t_es/tes agraw jaina frameset.htm

Sources

- Joseph, George Gheverghese, 1994, *The Crest of the Peacock: Non-European Roots of Mathematics*, London, Penguin Books
- Sen, S.N, 1971, Mathematics, in *A Concise History of Science in India* (Eds.) D. M. Bose, S. N. Sen and B.V. Subbarayappa, New Delhi: Indian National Science Academy, pp. 136-212.

Reference

http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/Jaina_mathematics.html

References for Jaina mathematics

http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/Printref/Jaina_mathem

Endnotes

[1] Review section 4, chapter 39 for more details about Odisha caves.
[2] Review section 2, chapter 11 for the meaning of these terms and names.
[3] Terms explained in section 2, chapter 11
[4] Review section 3, chapter 22 for details about Ellora caves and temples
[5] Review section 2, chapter 16 for details
[6] Source: *What is Vastushastra?* by A.K. Bansal
[7] Ibid
[8] Source: article 'Vastushastra science' appeared in *Akhand Jyoti* – Jan.-Feb.2004

[9] Source: *Rig Veda, Mandala* 7, hymn 54, verse 1
[10] For more details, read section 3, chapter 24
[11] Source: 'The Antiquity of Hindu Medicine and Civilization' by D.C. Muthu quoted in Will Durant's *The Story of Civilization* vol.I
[12] *Nakshatra* is a Sanskrit word.
[13] See section 2, chapter 10 about Indus-Sarasvati Civilization and town planning
[14] King Bhoja of Paramara dynasty is known for several public works. As mentioned in section 3, chapter 24, he also wrote a monumental work about architecture.
[15] Democracy of a high standard is ancient example http://www.hindu.com/fr/2003/10/10/stories/2003101001421200.htm
Dr. R. Nagaswamy- Director of ASI
[16] Source: 'Republic in Ancient India – Need for a new paradigm in political science' by Anil Chawla.
[17] Check section 3, chapter 21 for more details
[18] Another name for Chanakya was Kautilya.
[19] Kautilya – *Artha Sastra*
[20] For a detailed study, read the relevant parts in *The Study of Indian History and Culture*, vol.I by Bhishma Publications
[21] See section 2, chapter 9 on democratic traditions in ancient India and paragraphs about Kautilya's *Artha Sastra* in section 3, chapter 20.
[22] 'Guilds in Ancient India' by Jyotsna Kamat
[23] ibid.
[24] Read section 2, chapter 19 about Takshashila.
[25] "Takshashila 600 years older than earlier believed", by Mahmood Zaman. Reported in the Dawn Internet edition dated 24 March 2002. News items such as this suggests how recent archeological discoveries add to our knowledge of ancient history of India.
[26] Many details are available from the records/diaries maintained by the visiting Chinese scholar Hiuen-Tsang.
[27] Source: *Royal Chronology* by Neeraj Mohanka – all dates are approximate
[28] *Navhind Times* Goa – article by Sanjeev Kapoor (an expert on food and Indian culinary art), 'Indian food gives spiritual experience'
Posted on Hinducivilization@yahoogropus.com - Sept 4, 07
[29] Suffixes, prefixes and declensions
[30] Source: Visvajyoti, Feb. 1969- topic 'Q&A: 'Ancient India was in the middle of global trade'. Many scholars place the number at over 200 million words
[31] Source: 'Difference Engines: Move Over Mr. Turing' an article about Panini published in *Geek's Garden*, a computer magazine
[32] ibid.
[33] ibid.
[34] Many scholars place the Sutra period from 1200 B.C. to 200 B.C.
[35] Review section 3, chapter 29 for more details.

[36] *Harshcharita* by Bana is now available online at the link below.
http://www.mssc.edu/projectsouthasia/literature/primarydocs/Harshacarita/index.htm
Harsha-carita of Bana (1897 E. B. Cowell and F. W. Thomas translation)

[37] The norms of sociopolitical policy is termed '*niti*' in Sanskrit language

[38] Review section 3, chapter 20 for more details about the literary works of Chanakya.

[39] Quote from 'Indian Wisdom and its Spread Beyond India' by Ludwik Sternbach

[40] The spread of Wisdom literature of India to other countries far and near is discussed in section 3, chapter 28.

[41] Recommended reading for full details about Indian mathematics, *Indian Mathematics- Redressing the Balance,* Ian G. Pearce

[42] Check section 3, chapter 22 for more details.

[43] The Sanskrit word for trigonometry and geometry are *trikonemiti* and *geomiti* which literally mean measurement of triangles and measurement of space.

[44] Source: 'Ancient Jaina Mathematics: an Introduction', an article by D.P. Agarwal

[45] Link for learning more details on the subject:
http://www.infinityfoundation.com/mandala/t_es t es agraw jaina frameset.htm

[46] Review section 2, chapter 6 for more details.

[47] Review section 2, chapter 6 for the picture of the scale found in the ruins of Indus-Sarasvati region.

[48] Source: http://www.ucl.ac.uk/southasianarchaeology/Indus%20Civilisation.pdf, (Page 5): From the 7th to the 2nd millennium B.C. in Balochistan (Pakistan) The development of copper metallurgy before and during the Indus Civilisation Benoît Mille & David Bourgarit: Centre de Recherche et de Restauration des Musées de France, UMR 171 du CNRS; JérômeF. Haquet & R. Besenval: Musée Guimet,UMR 9993 du CNRS

[49] Source: Posted by Dr Ravi K Mohanty, in *Hindustan Times*, March 1, 2003 http://www.hindustantimes.com/on/img/0.gif

[50] Source: talk at the Indian Institute of Chemical Technology by Nobel laureate Robert F. Curl, Dec. 07

[51] Source: 'Hindu Achievements in Exact Science' by B.K. Sarkar

[52] ibid.

[53] Source: Vasant Heble

[54] *Astra* means long range missile.

[55] Dronacharya was the teacher of Kauravas and Pandavas 5100 years ago.

[56] Review section 2, chapter 6 for artifacts of sculpted figurines found in Indus-Sarasvati region.

[57] Frieze is a horizontal sculpted band usually depicting a theme.

[58] Frescoes are paintings on wet plaster or sandstone.

[59] Review section 2, chapter 6 for more details and for picture of the oldest set of chess and dice pieces

[60] Source: http://www.hindu.com/2008/01/09/stories/2008010956451300.htm

[61] Archaeological Survey of India

[62] This may be considered as a primary source.

[63] Source: Jahnavi Contractor's article in *The Times of India* on March 8, 2003
Link: http://timesofindia.indiatimes.com/cms.dll/html/uncomp/articleshow?artid=39605371

[64] It is still used in small town schools for students to learn to write the script.

[65] Sanskrit word for pillar is *stambha*.

[66] Source: http://www.vigyanprasar.com

[69] Source: article by Subhash Kak
Link: http://www.rediff.com/news/2003/aug/22kak.htm

[68] 'Annals and Antiquities of Rajasthan: or The Central and Western Rajput States of India' by Colonel James Tod

Chapter 27

History of Medicine and Surgery in Ancient India – The Science of Ayurveda

This chapter will describe India's contribution in the field of medicine and surgery. It will trace the history of medicine and surgery to very ancient times. Ayurveda is a five millennia old tradition of India. The records of Indian system of medicine begin with *Atharva Veda*.

Ayurveda treats each person as a unique individual different in physical and mental constitution. Therefore, there cannot be a uniform set of rules and diagnosis that can apply to everyone alike.

According to Ayurveda, there are three categories of body types:

a. People with air and space as predominant elements in their body,
b. People with fire as predominant element in their body and,
c. People with water and gross matter (*Prithivi*) as predominant elements in their body.

Group (a) is known as *Vatta*[1] (air), group (b) is known as *Pitta*[2] and group (c) is known as *Kaphha*[3]. Excess of *Vatta*, *Kaphha* or *Pitta* in a person is considered an imbalance. This imbalance is called *Dosha* in Sanskrit. People with different body types are prone to different groups of diseases. For example, *Vatta* type people are prone to anxiety, dryness of skin and insomnia. The *Pitta* type people are prone to heart-related problems and *Kaphha* type people have diseases such as diabetes, obesity, colds and retention of water.

People with different body types have different temperament and psychological traits. *Vatta* people are mentally agile, adaptable and creative. *Pitta* type persons exhibit sound reasoning, understanding and judgment. *Kaphha* type persons are emotional and have a tendency to hold on to

normative structures. When confronted with unknown situations, a *Vatta* person reacts with fear and anxiety and a *Pitta* person's immediate reaction is anger. A *Kaphha* type person does not react immediately. Of all the three types, *Kaphha* persons are practical and more grounded. They also suffer from inertia and therefore have a tendency to stagnate.

Generally speaking most people are a combination of two categories. It is only in sickness, that their main humor becomes a *Dosha*. Wrong diet and wrong attitudes can cause illness and by correcting the diet and mental outlook one can cure these ailments.

According to Ayurveda, a woman's body is not the same as a man's body therefore, treatments for women's diseases come under a separate category.

There is a connection between the body, mind and the consciousness. When the mind throws negative ideas, the body reacts in the form of ill health. Similarly, when the body is malfunctioning the mind undergoes stress, depression and anxiety.

Treatment

In order to get rid of a disease, the doctor (*Vaidya*) has to get rid of the causes of the disease. The process of healing has to start with correcting the imbalance in the body's humors. Some minor ailments can be avoided simply by fasting.

According to Ayurvedic doctors, nature provides food; it also supplies remedies and antidotes for a disease. For every food that harms the body, there is another plant that acts as a medicine.

Most medicines are derived from plants and herbs. About 20,000 herbs grow all over India—-mostly in the foothills of mountains. About 2,000 are used for preparing medicines. Medicines are given in the form of syrup, decoction, and powder.

Thus, herbal treatment, massages, water therapy, detoxification and proper diet can cure diseases. Even today, many of the diagnoses and treatments are widely used in India. More and more doctors trained as allopathic doctors are resorting to integrating Indian medical practices. The holistic approach recognizes the value of Ayurvedic medical system and recommends Yoga and meditation for mental problems. Herbs such as turmeric, cumin, cloves, neem, cinnamon, cardamom, licorice, rock salts, dill seeds, fennel seeds, asafoetida and Indian gooseberry are a few of the vast number of medicinal herbs that are being used in western medicines

today. The ancient physicians had a scientific medical system. It flourished and it cured. Ancient Ayurvedic texts elaborate and classify a great deal of observational data about drugs, diseases, diet, environmental and seasonal conditions etc.

Diet and Environment

Ayurveda considers diet as a medicine. It is believed that if the diet is wrong, no medicine will work but if the diet is right then one does not need medicine. Then the next question arises, what is the right diet and is it the same for all people? Is the same diet right in all seasons?

Ayurveda recognizes six categories of tastes, known as *rasas*. These six *rasas* are astringent, pungent, bitter, salty, sour and sweet. Different plant foods have different *rasas*. For example, radishes, garlic and the green leafy vegetables are astringent, bitter gourd and fenugreeks are bitter in taste. Onions, lentils and grains are sweet and potatoes are salty. Tamarind, Indian gooseberry, and citrus fruits are sour and spices are pungent. *Kaphha* people are attracted to sweets, salty and sour food that further aggravate their *Kaphha Dosha*. *Vatta* people favor astringent, pungent and bitter foods that aggravate their *Vatta Dosha*. *Pitta* people favor pungent and bitter food and that increases their *Dosha*. While applying the law of the opposites, each group should try to include food that enhances the other two humors in the body. For example, *Kaphha* people should avoid sweet, salty and sour foods and food preparations.

Ayurveda advises that people should eat seasonal foods. Food that grows in summer has cooling properties and food that grows in winter has heating properties. Unfortunately, because of the fast and refrigerated transportation, in winter, people obtain nonseasonal foods from other countries that have a summer season at the time.

Ayurveda suggests ways to cut down the basic *rasa* of the food by adding other food ingredients with other *rasas*. One example may be given here; lentils have a tendency to create gases in the body. If we cook lentils with onion, spices, garlic and ginger, that problem can be solved. Cooking which corrects the inherent *Guna* of the food by adding ingredients with different *Gunas* is known as *Tridoshika* diet.

Famous Physicians and Surgeons

Dhanvantri was the teacher of both Jivika and Sushruta and is considered the father of Ayurveda. Sushruta was a famous surgeon of his time.[4]

Sushruta Samhita is an exhaustive treatise that describes various categories of diseases, their relation to the mind and their causes and treatment. In three long volumes (over a thousand pages) it discusses every aspect of diseases and proneness to them. Many topics have a clarification through dialogues between Dhanvantri and his disciples. The book contains the teacher's statement, students' response, minority views and the editor's remarks.

Sushruta Samhita has 192 chapters, the first nine chapters are about surgical instruments; what they are, what material they are made of and which type of surgical procedure they are used for. Sushruta worked with 125 instruments. Everybody today is familiar with the names of equipments such as lancets, scalpels, needles and catheters. These and many more are described in his treatise. The treatise also contains sketches of the instruments. He describes various methods of stitching wounds and recommends different dressings for various types of wounds.

Referring to the skills of surgeons and the quality of the instruments used by Indian surgeons, Mrs. Plunket says, "The Hindus (Indians) were so advanced in surgery that their instruments could cut a hair longitudinally."

In *Sushruta Samhita*[5], Sushruta describes eight types of surgery: extracting solid bodies (tumors), excision, incision, probing, scarification, puncturing, evacuating fluids and suturing.

According to Garrison, "The ancient Hindus performed almost every major operation except ligation of the arteries."[6]

In India, from 6th century B.C. onwards, limbs were amputated, abdominal sections were performed, fractures were set, hemorrhoids were removed, and cesarean section was done.

Sushruta laid down elaborate rules for preparing an operation and his suggestion that the wound be sterilized by fumigation is one of the earliest known efforts at antiseptic surgery.[7]

According to Sushruta, there are two types of diseases, three types of pains and seven types of disorders. There are diseases which require surgery and there are diseases which can be cured by medicines and massages. While medicines can be used in surgical procedures, surgery cannot be performed in diseases that can be cured with simple medicinal regimen.

There are three types of pains — spiritual, physical and mental.

The details provided by Sushruta about the origin of diseases makes the most fascinating study for the layperson; especially when we consider

the fact that Sushruta belonged to 6th century B.C. (if not earlier). According to him, causes of the diseases can be classified into seven categories:

1. Some disorders are genetic which means they are inherited from parents.
2. Some problems are caused by things going wrong during pregnancy.
3. Many diseases are caused by wrong diet and improper digestion — leaving undigested particles in the body.
4. Some disorders are caused by accidents such as nearness to a person suffering from infectious diseases, assault, snake bite or similar accidents.
5. A few disorders are caused by variations in seasons or due to aging.
6. Diseases are caused by nearness to a diseased person or by an epidemic.
7. And lastly many diseases occur when we compromise our defense mechanism by wrong habits and diet.

He also categorizes disorders relating to the *Dhatus*[8] . There are eight such categories of diseases — diseases of the lymphatic system, diseases of blood circulation, disorders of tissues and cells, diseases relating to skeletal system, bone marrow, hormones and digestive organs.

Sushruta enumerated about 1,120 diseases. He recommended diagnosis by listening to the sounds in the chest and the abdomen, by checking the pulse and by inspecting the tongue. Ayurvedic doctors use all these methods even today.

Jivika was a student of Dhanvantri and a classmate of Sushruta. He was appointed as a personal physician for Emperor Bimbisara. He was also the personal physician of Lord Buddha. He performed surgeries on the brain and intestinal "entanglements" as per Vinaya texts. He was an expert in maternity science. He was called Kumar Bhrutya Jivaka.

When Candappajjota of Ujjain was suffering from jaundice, Bimbisára, the King of Magadha sent Jivaka to Ujjain for treating the ailing king. Jivaka wrote 8 volumes on medicine.

Medicines

Charaka, a noted physician of his times lived some 2,500 years ago[9]. He describes the functions of the heart and the circulatory system. Thus, his discovery predates Harvey's discovery of the same fact by 2,000 years. He is considered to be the world's best physician. He wrote *Charaka Samhita*, a "handbook of a physician". The *Charaka Samhita* consists of 120 chapters,

distributed in 8 sections. He describes eight major divisions of Ayurveda: surgery, treatment of eyes and head, therapeutics, toxicology, pediatrics, pharmacology and preparation of medicines, mental diseases and treating reproductive problems.

Charaka believed that the human body is composed of innumerable cells. They, in their turn, are composed of five elements (*mahabhutas*)[10]; earth (*prithvi* or gross matter), water (*apa*), fire (*tejas*), air (*vayu*) and space (*akasa*). Space being all-pervasive, only four elements count. The genetic material of both the parents is added to these elements to make 16 types of *mahabhutas* derived from four different sources. Of all the constituents of the body, three *doshas*, viz., *Vatta*, *Pitta* and *Kaphha* play a vital role in the normal as well as the abnormal functioning of the body. Correct diagnosis of these imbalances helps in the treatment of diseases. They regulate the functions of the mind also. Charaka believed that foods and drugs as well as the body are composed of the same five basic elements. Body tissues are consumed during the process of work. These are to be replenished by food. Charaka explains that fire or the enzymes required for digestion and metabolism are responsible for the growth of life-span, complexion, vitality, energy, plumpness, *ojas*[11], muscular strength, etc.

Charaka describes twenty types of disease-causing germs, some of them reside outside the body and some others reside inside the body. For the treatment of different diseases, Charaka describes oral medicines, eye drops, gargles, smoking, nasal inhalations, powders, ointments, creams, lotions, medicated oils and clarified butter (*ghees)*, suppositories, tampons, cotton swabs, enemas, douches, fomentation, bandages, etc.

According to D.P. Agrawal, "Charaka propagated his knowledge and gave relief to patients by moving from place to place."

His work became famous all over the world. At the beginning of the 8th century A.D. this work was translated into Arabic. Charaka's name appears as "Sharaka Indiansus" in the Latin translations of Avicena, Razes and Serapion. Fihrest (finished in 987 A.D.) mentions that *Charaka Samhita* was translated from Sanskrit into Persian and from Persian into Arabic. "Al-Beruni's chief source of medicine was the Arabic edition of Charaka."

Though there is no reference to clinical trials and sample studies, Indian physicians did learn from dissection of corpses and by postmortem dissections. Chanakya mentions this in his *Artha Sastra.* The Ayurvedic texts lay great store by empirical observation. The texts provide very detailed instructions about the gathering of empirical data on drugs, on symptoms of health and morbidity, and even on anatomy through the dissection of

corpses. The texts mention drugs of vegetable, animal and mineral origin. The number of drug plants recorded in the three *Samhitas* – *Charaka*, *Sushruta* and *Ashtanga-Hridaya* – is between 600 and 700 and the number of Sanskrit names, excluding their derivatives, of vegetable drugs is about 1,900. To this it needs to be added that the medical works do not discuss the value of a plant as a whole; instead the texts describe the effects on our bodies of different parts and products of the plants. As the *Charaka Samhita* explains, "Root, bark, pith, exudation, stalk, juice, sprouts, alkalis, milk, fruit, flower, ash, oils, thorns, leaves, buds, bulbs and offshoots are the plant products known in medicine."[12]

While discussing therapeutic and other properties of substances of animal origin, the *Charaka Samhita* alone describes one hundred and sixty five varieties of animals. *Charaka Samhita* also mentions 64 main minerals used for therapeutic purposes.

Thus, the medical texts discuss how drug plants with their different parts form different drugs, and 165 varieties of animals again with different products and parts act as different drugs. Each of these substances is subject to a variety of pharmacological processes and preparations; and the texts also describe how the therapeutic properties of different substances vary according to the pharmacological processing and preparation.

Besides medicines, heat therapy and water therapy were used for treating various diseases.

Other renowned physicians were Vagbhata and Bhava Misra.

Qualities of a Medical Practitioner

The qualifications of a medical student or a practitioner described in *Charaka Samhita* is worth quoting in full:

> "He should be peaceful, noble in disposition, incapable of any mean act, with straight eyes, face and nose, with slim body, with a clean and red tongue without distortion of teeth and lips, with clear voice (that is, with voice neither indistinct nor nasal), persevering, without egotism, intelligent, endowed with powers of reasoning and good memory, with broad mind, inclined to medical study either because of being born in the family of physicians or by natural aptitude, with eagerness to gain the knowledge of truth, with no deformity of body and no defect of sense-organs; by nature, modest and gentle, contemplating on the true nature of things, without anger and without addiction, endowed with good conduct, cleanliness, good habits, love, skill and courtesy, desirous of the welfare of all living beings, devoid of greed and laziness and with full loyalty and attachment to the teacher."[13]

Learning is a continuous effort. In this regard, *Charaka Samhita* says, '...the entire world is the teacher of the intelligent physician, as it is the foe of the fool'. Both Charaka and Sushruta assert that 'no substance is found in the world which is without relevance for medicine.' "The Ayurvedic physicians develop an elaborate theoretical framework to classify and understand data on drugs and diseases and to infer the ways of curing diseases. He is the best of physicians who can in actual practice cure people of diseases."[14]

Medical Ethics

Charaka recommended high ethical conduct for the Vaidyas. He said, "Not for self, not for the fulfillment of the earthly desire of gain, but solely for the good of suffering humanity should you treat your patients and so excel all."[15] This almost sounds like the Hippocratic Oath that a modern doctor is required to take before commencing his medical practice. Charaka suggested that the ruler of the kingdom must protect genuine physicians and ban practices by pseudo-physicians, failing which such quacks will endanger the life and property of the people. The rules of admission to medical sciences were strict. Before a student was admitted for the study of the medical sciences he was fully examined with reference to his physical qualities and mental aptitude. He had to take the oath of initiation in the presence of respectable persons of society to lead his life in such a way as would be conducive to his study. After completion of the study he was to be further examined before obtaining admission to the profession.

Relevance of Charaka to Modern Medicine

Charaka is very modern in his emphasis on the prevention of diseases. His theories of immunity, digestion and metabolism are the basis of modern medical science. Charaka's description of the general nursing home, maternity home, medical ethics, emphasis on experimental scientific methodology, heredity, and rejection of quackery and many ideas about the management of diseases are not only accepted but prove that these are relevant today.

Use of Meats and Wines, a Way to Cure Diseases

Sushruta mentions several types of wines (based on the type of grain or fruit used) that can be used for treatment. He also elaborates the use of herbs that can numb the pain or intoxicate the person to such an extent that the surgery can be performed without problems. He lists diseases that are specifically related to non-vegetarian people. It indicates that there were non-vegetarian people in Ancient India.

Gautama Buddha a believer in non-injury and nonviolence goes to the extent of saying, 'I allow, Oh *bhikkus*, in the case of a disease not human, the use of raw flesh and the blood.'[16]

Vaccination[17] was known to Indians as early as 5th century B.C. Dhanvantri, one of the earliest physicians, described the method of making vaccines by taking the pock from the cow. This vaccine was used widely by physicians to stop the disease from becoming an epidemic. Europe developed the ideas of vaccination only in the 18th century.

Hospitals were built as early as the second century B.C. Asoka of Maurya dynasty built several hospitals in various parts of his vast kingdom.

Laws of Sanitation and Germ Theory[18] – Sushruta recommended that agents transmitting diseases should always be investigated and all precautions should be taken to keep the patients suffering from infection and contagious diseases away from other people.

> "Charaka conceived the germ theory of the causation of diseases, but he rejected the idea that germs are the only causative factors for disease. On the other hand, he had advanced the theory that it is the imbalance of *doshas* and vitiation of *dhatus* that are primary causes of diseases, and various germs may grow in the body only when they get such a congenial environment. Both for metabolic diseases and infective ones, correction of the imbalance of *doshas* and *dhatus* constitutes the basic principle of all therapeutics. This is a unique feature of the Ayurvedic concept of diseases and their management as enunciated by Charaka in his monumental work."[19]

Bathing and the daily routines of cleanliness were also emphasized. It is said that the standards of cleanliness and sanitation set by Ancient Indians were much higher than even those in the 18th century Europe.

Hypnotherapy[20] – Patients were often given hypnotic suggestions. According to Garrison, "The Englishmen who introduced hypnotherapy in England undoubtedly got their ideas and some of their experience from contact with India."

Aura of Trees, Plants, *Yajna* Ceremonies

Through scientific research with the help of modern technology, the scientists have discovered that the aura of trees, plants, flowers and *yajna* ceremonies (during these ceremonies material from all of these sources is placed in the sacred fire) can not only clean the pollutants from the environment but can also generate positive energy in human beings by cleansing harmful elements like bacteria, virus and protozoan living as

parasites in human bodies. The Institute of Scientific Research on Vedas, Hyderabad, conducted several studies and proved that pollution could be checked by spreading "positive energy" generated through Vedic *yajna* ceremonies and circumambulation of holy trees and plants. These plants and trees are listed in the Vedic texts. Research studies by the Institute of Scientific Research on Vedas at different places in Andhra Pradesh listed some of the plants and trees : *Tulsi* (holy basil), *Jammi* (Bulrush tree), *Ravi* (Peepul tree) and *Neem*; flowers like marigold, jasmine, lotus, chrysanthemums, hibiscus and rose. These and many more mentioned in the Vedas possess and emit positive energy through which negative energy of humans can be removed. There are some trees, which many people worship, that have an aura extending beyond human aura.[21] The effect of aroma and aura is mentioned in Ayurvedic texts.

Mind-body Connection

Our behavior is mostly controlled by our main humor or *Dosha*. Ayurveda emphasizes that the right mental attitude is key to understanding the causes of a disease and our capacity to fight it. Our mental reaction to pain and suffering can largely mitigate or aggravate the disease. Our emotions affect the secretions of hormones and affect the channelization of energy. Fear, anxiety and anger can aggravate diseases. Unresolved issues such as grudges and remorse leave an emotional residue called *Ama*, exactly the way undigested or unmetabolized food particles leave toxins in the body. Correcting reactive behavior through yogic practices and exercising mental self-control can help fight disease.[22]

Summary

Ayurveda aims at physical, mental and spiritual well-being. It focuses on the treatment of diseases and suggests ways to prevent diseases. It also describes ways of prolonging life and slowing the aging process. Its greatest contribution to mankind is the yogic discipline with which one can lead a meaningful and spiritual life style. Thus, Ayurveda offers treatment and therapies for physical as well as mental well being.

Among the great surgeons and physicians of ancient times were Sushruta, Jivika, Charaka and Vagabhat. *Sushruta Samhita* gives details of:

- Origin of diseases
- Classification of diseases
- Surgical procedures
- Instruments and techniques

Many surgical procedures are even followed in modern medicine. Sushruta is also known to have started rhinoplasty. The skills and expertise of Indian physicians was so well-known that "Caliph Haroun-al-Rashid accepted the preeminence of Indian medicine and scholarship and imported Hindu physicians to organize hospitals and medical schools in Baghdad."[23]

"Medieval and modern Europe owes its system of medicine directly to the Arabs and through them to India." said Lord Ampthill. Thus there is sufficient evidence to believe that Indian medicine, in the ancient times, continuously flourished and worked effectively.

Concepts to Understand

1. Broadly speaking there are three body types—*Vatta*, *Pitta* and *Kaphha*.
2. People with different body types have proneness to different groups of diseases.
3. People with different body types have different temperaments and psychological traits.
4. The medicines and treatment regiment is not the same for all three types. Herbal treatment, massages, water therapy, detoxification and proper diet can cure diseases. Many of the diagnoses and treatments are still widely used in India.
5. The process of healing has to start with correcting the imbalance in the body's *doshas*.
6. Wrong diet can cause illness and correcting the diet can cure ailments.
7. Fasting can cure some minor ailments.
8. Water and heat therapy are also effective in the treatment of many ailments.
9. Nature provides food; it also supplies remedies and antidotes for disease.
10. Medicines are derived from plants, herbs and animals.
11. There are about 20,000 herbs which grow all over India, mostly in the foothills of the mountains. About 2,000 are used for preparing medicines.
12. Medicines are administered in the form of syrup, decoction, and powder.
13. A woman's body is not the same; therefore treatments for women's diseases come under a separate category in Ayurveda.

14. In order to get rid of a disease the doctor (*Vaidya*) has to get rid of the causes of the disease. Treating the symptoms alone does not cure the disease.
15. There is a connection between the body, mind and the consciousness.
16. Great surgeons and physicians left voluminous texts to guide medical practitioners.
17. Diet can be a medicine if it is selected and cooked keeping in mind the basic humor of the person for whom it is meant. Diet should vary according to seasons and the environment.
18. According to Western medicine, you are what you eat while Ayurveda says you are what your body can digest.

Questions

1. What is the definition of science? Does the Indian system of medicine and surgery qualify to be called a science?
2. Was there a large community of medical practitioners in Ancient India?
3. Name a few medical texts and explain what type of methodology of diagnosis is detailed in the texts?
4. How is Ayurveda different from modern allopathic system of medicine?
5. When pharmaceutical companies work for profits, do their products always help a patient?
6. Which part of the Ayurvedic science is not emphasized by modern day medicine?

Enrichment Activity

1. Read the paragraph under the heading 'qualities of a medical practitioner'. Discuss if we can expect all these qualities from a medical practitioner in modern days.

Critical Thinking Activity

1. Over five or six thousand years, generations of Indian healers passed along a wide variety of techniques for using thousands of different foods and plants for medicinal purposes. Now these ancient elements of Ayurvedic medicine are being taken and patented by Western drug companies. In modern times when every company guards its secrets and registers its formulas, should the Indian government plan to protect its healing heritage?

New Words to Learn

- Ayurveda – knowledge (science) of longevity.

(Edits, clarifications and helpful suggestions for this chapter, given by Dr. Dilip Sarkar[24] and Dr. Sunil Kumar[25] are gratefully appreciated.)

Endnotes

[1] *Vatta* – that which blows

[2] *Pitta* – what cooks. It refers to fire. In human body, the secretions of the glands control metabolism and digestion in the body.

[3] *Kaphha* – sticky, mucus.

[4] Some information about Sushruta is given in section 3, chapter 18

[5] *Sushruta Samhita* – Hindi translation by Atridev

[6] Source: *History of Medicine*, F.H. Garrison

[7] Source: *The Antiquity of Hindu Medicine and Civilization*, D.C. Muthu

[8] *Dhatu* (Sanskrit) literally means root. Here it refers to the structural components of the human body. For example skeleton is part of the structure of the body, so are the tissues and cells.

[9] Many historians of medicine place him around 8th century B.C.

[10] *Mahabhutas* are the 5 basic elements which are responsible for the formation of all living things. These are space, air, fire, water and gross matter (earth).

[11] *Ojas* is the Sanskrit word for vital energy of water

[12] Source: *Charaka Samhita* quoted by Debiprasad Chattopadhyaya in the first chapter of his book *Science and Society in Ancient India*

[13] *Charaka Samhita*

[14] ibid

[15] Quoted by Will Durant, *The Story of Civilization*, vol.I

[16] Source: *Vinaya Pitaka*, page 332

[17] Source: *History of Medicine* by F.H. Garrison

[18] Will Durant-quotes from the book *England's Debt to India* by Lajpat Rai

[19] Source: 'The Date Of Caraka, The Famous Ancient Physician' by D.P. Agrawal

[20] Source: *History of Medicine* by F.H. Garrison

[21] Source: research team of Vedic Research Institute at Hyderabad.

[22] Review section 3, chapter 25 for details about Yoga and Yogic practices.

[23] Source: *The Story of Civilization*, vol.I by Will Durant

[24] Dr. Dilip Sarkar is an eminent retired Vascular Surgeon who teaches both western and holistic medicine.

[25] Dr. Sunil Kumar is Ayurvedic physician at Ananda Spa in Narendra Nagar Uttaranchal. Ananda is internationally rated number one health resort in the world.

Chapter 28

Impact of Indian Culture and Indian Civilization

In ancient times, any reference to 'India' indicated the composite culture of the Indian subcontinent. The boundaries of the Indian kingdoms were up to the Oxi River. Many Indian kingdoms and republics such as, Balhika, Arut, Saindhava, Kamboja and Gandhara were between River Indus and River Oxi. This chapter will discuss the impact of Indian civilization and culture on Asian, Middle Eastern and east European countries. The chapter will focus on the spread of Indian culture in the neighboring countries. It will especially focus on how cultural influence of India spread by honoring the spirit of respect for other people's freedom. In the known history of India, India did not covet lands of others and did not enforce their way of life on others by using coercion or barbaric force. The following quote from the speech of former President Dr. A P J Abdul Kalam on the subject says it so eloquently,

> "I have three visions for India. In 3,000 years of our history, people from all over the world have come and invaded us, captured our lands, conquered our minds. From Alexander onwards – The Greeks, the Turks, the Moguls, the Portuguese, the British, the French, the Dutch, all of them came and looted us, took over what was ours. Yet we have not done this to any other nation. We have not conquered anyone. We have not grabbed their land, their culture, their history and tried to enforce our way of life on them. Why, because, we respect the freedom of others. That is why my first vision is that of FREEDOM."[1]

In many parts of Central and East Asia, prevalence of Vedic culture can be traced to 5,000 to 3,000 years B.C. Several elements of Vedic knowledge reached various parts of the world. The stories from *Puranas*, *Ramayana*, *Mahabharata* have traveled not only to the neighboring countries but to far off places like Russia. *Panchatantra* must have traveled to the East

and the West at a very early period because most of the western nursery rhymes and wisdom literature have their origins in *Panchatantra* and *Jataka* tales. These stories were the themes and the inspiration of much of the temple structure of various countries. This literature also reached Tibet, China and the Central Asian countries in the North as well as almost all South East Asian countries of today. Many stories of Aesop Tales actually have their origin in Indian literature.

Hindu and the Buddhist art in Japan, Burma, Thailand, Bali, Sumatra, Cambodia, China as well as the Sanskrit names of Central American civilizations such as Mayan[2], Astika[3] and Anka[4] indicate that India was among the most globalized nations. She exported spices to Europe, music to Japan, Buddhism to China, Tibet, Burma, Japan, Sri Lanka and several other neighboring countries. At a time when international travel was unthinkable, Indians reached distant lands. India prospered because of its continuous interaction with the world.

New evidence reveals that even before the beginning of marine trade and the exchange of items and ideas, there were settlements of Indians in Africa.

Some of the names and words in Africa and most of the Asian countries bear resemblance to the words and names used in ancient India. It suggests that the Indian kingdoms existed across other islands and parts of Africa. The nonexistence of these words in any of the European languages also suggests that for Europeans of those times the world was very small. Except for the Romans and Greeks, the European interaction with India came much later.

Indian Culture – its Spread

The speech of Dr. A P J Abdul Kalam, the former president of India emphasizes the fact that though India did not conquer or covet other people's lands yet they had extensive influence on the culture, religion and literature of other countries. The Sanskrit and Pali maxims, proverbs and gnomes were not only popular all over India but were used in almost all southeastern countries as well. Many of them used these in the original languages such as Sanskrit and Pali. Many other countries adapted these sayings in their own native languages and compiled these in their own anthologies. It is interesting to know that some of this literature is lost in India but is preserved in other countries.

Wisdom Literature – Its Spread

As mentioned in section 3, chapter 26 Sanskrit wisdom literature had a great influence on shaping the morals and policy formation in ancient India. Wisdom literature is mostly in the form of short sayings in poetry. The brevity and lyrical quality of the saying make it easy to remember and pass on in oral rendition from generation to generation. These sayings traveled to several countries both near and far. Many collections prepared by scholars over the centuries were destroyed in the Muslim invasions from the 8th to 17th century A.D. However, they are found preserved in the literature of foreign countries, such as Bali, Sumatra, Malaya, Champa, Mongolia and even some Central Asian countries.[5]

> According to Ludwik Sternbach,
>
> "Probably many more collections of wise sayings in Sanskrit exist in countries which were influenced by Indian culture, but with so many works still buried in the countries of South, Southeast and Central Asia, it is impossible to ascertain today the existence of other treasures of Sanskrit wisdom literature which spread beyond India."[6]

The wise sayings form a mass of oral traditions. These were adopted in different countries influenced by Indian culture. For example, the same maxims are found in India, Tibet, Sri Lanka, Bali, Java and Burma.

During the period from 9th to 11th century A.D. the best known maxims and proverbs from Sanskrit literature were translated into Tibetan language and were compiled in their literary work — *Tanjur* and *Kanjur*. Besides Chanakya's *Rajaniti Sastra*, seven other collections were included in the *Tanjur*. One of the earliest translators was Lo-tsa-ba-yesessde who lived in 9th century A.D. Many sayings dealing with ethics and general advice on various subjects were taken from the epics, *Puranas* and *Hitopadesha*.

From Tibet, this literature went to Mongolia and Manchuria. At first, these sayings were used in Tibetan languages, and later, these works were translated in the Mongolian language. *Subhasita-Ratnanidhi* was one of the most popular works in Mongolia.

Sanskrit literature including the epics and the mass of wisdom sayings traveled to Sri Lanka from the Southern kingdoms. The process which began in the early phase of Sangam period continued up to the time of the Cholas when Ceylon came under the rule of the Cholas. As in other countries, Chanakya's *Nitisastra* and *Vyasakaraya* (sayings of sage Vyasa) were popular in Sri Lanka. Later, Sri Lanka compiled an anthology of popular sayings in *Simhales*. This anthology is titled *Simhala Niti*.

In Burma, wisdom literature of India traveled from Sri Lanka and Bangkok. The most popular collections were *Lokaniti* and *Dhammaniti*. At first, the collections were in Sanskrit and Pali, later these were translated in Burmese languages. From third century onwards, Sri Lanka was predominantly a Buddhist country. The Buddhist *Bhikkus* traveled among various countries such as Sri Lanka, Java, Thailand and Burma. Much of the literature thus traveled from one place to another. Wisdom literature also traveled to countries such as Laos, Cambodia, Bali, Sumatra, Malaysia and some central Asian countries. In Thailand, there is a collection called grandfather's teachings to his grandchild. These are versions of Sanskrit and Pali maxims from India. Sanskrit flourished in many countries for a long period of time. For example, around 8th century A.D., Java, Sumatra, Malay and Bali were ruled by the Sailendra dynasty, and the Indonesian archipelago was a Hindu kingdom. Hinduism along with Buddhism continued to flourish till 14th century. However, as Pali and Sanskrit declined in these regions, each country translated these compilations in their own languages. Some new maxims were also added. Though not of Indian origin, these were influenced by Indian thought.

In the West, some of the proverbs can be traced to India. The famous saying from *Mahabharata*, "Do not do to others what is disagreeable to yourself that is *Dharma* in brief." has been later repeated by several other Indian writers. This saying is found in western literature as well. Many stories contained in Aesop's tales are originally from *Panchatantra*.

In Africa

In some parts of the African continent, Africans were called *Cushites* because *Kush*, Lord Rama's son used to rule there. Remnants of Vedic links can be traced in other regions as well.

The island of Mauritius gets its name from *Marichas*[7], the island of Maricha. Maricha was one of the generals in the army of King Ravana of Sri Lanka. The African Swahili language and other local dialects bear the remnants of Vedic Sanskrit. e.g., the Swahili word *simba* for lion is the Sanskrit word '*simha*'. Somalia is named after *Soma* and Tanganyka from *Tung Nayak* meaning, the "great leader". The port Dar-es-salaam is the Sanskrit word *Dwar-eeshalayam* meaning "Gateway to the temple of God." This also shows how the Vedic culture existed in Africa. The ancient African religions have faded as Islam and Christianity continued to spread, but many of the old ceremonies and beliefs have similarities with those of *Vedic Dharma*.

Afghanistan

Modern day Afghanistan consisted of three kingdoms and several republics. Republic of Arut and Balhika were prosperous states at the time of Alexander's invasion. Soon after Alexander left, his battalions were defeated and the Greek garrisons destroyed. The Republics gained their independence and became allies of Chandragupta Maurya. Gandhara was a vast kingdom that flourished from the days of *Mahabharata* to the times of Maurya kings. The kingdom had vast regions mostly on the east side of the Indus River. These Vedic kingdoms followed *Vedic Dharma* and traditions. During the Kushana period many people also became Buddhists. Bamiyan Buddha statues — the largest statues ever made probably belonged to this period.[8] Most of the temples and museums have been destroyed during Afghanistan's insurgency against the erstwhile Soviet Union and the subsequent Taliban rule over the region.

Bali and Java — Indonesian Archipelago

In the ancient times Indonesia — a group of several islands was ruled by kings who were either related to the Indians through marriages or were influenced by the visitors from India. Java, Sumatra, Malaya, Burma, Sukarta (Jakarta), Bali, Champa, Cambodia, Vietnam and Thailand were all independent kingdoms with a common cultural thread. These kingdoms had rulers who were either Hindu or Buddhists.

On the basis of the inscriptions and the scattered accounts about the early history of these island kingdoms, it seems that the first Hindu kingdom in Java was established before the first century A.D.

King Devavarman of Java sent an ambassador to China in that year. Inscriptions found in the East Borneo narrate the achievements of King Mulavarman. The names of these kings are Sanskrit names. These kings performed Vedic ceremonies and followed Vedic values. In the fourth century A.D. Fa-Hien visited India. On his way back to China, he visited Borneo and recorded his impressions.

Another Hindu kingdom existed in Western Java. The Inscriptions found about this are written in the script used by the Pallava Kings[9]. These inscriptions indicate cordial relations between Indian kings and the Javanese rulers. The greatest ruling kings of Java were from the Sailendra dynasty. In 850 A.D. one of the Sailendra kings created an endowment for Nalanda University. Another king approached Rajaraja Chola of Kanchi for land in the Chola kingdom for making a Buddhist monastery. During their rule, several monuments of Hindu and Buddhist style were built. Beautifully

sculpted, Chandi Kalsan temple shows a remarkable resemblance to Hindu art of Southern India. The method of depiction and the themes are the same. The epic stories of *Ramayana* and *Mahabharata* are not only narrated on the panels of the temples but were also subjects of dramatic arts. Javanese used the epics for shadow plays and puppet shows.

These kings also patronized the building of Buddhist Stupas. The famous Borobudur Stupa is acclaimed as the finest monument of sculpted art in Java. Unlike Indian Stupas, this Stupa has grandeur and intricate art work. According to B.N. Puri, "The total number of sculptured panels decorating the walls and balustrades along the four galleries number no less than 1300."

There are three temples dedicated to Brahma, Vishnu and Shiva in Prambanan, Java. This place is east of Jakarta.

Hindu kings ruled Sumatra, Champa, Burma and Annam. All these names of countries/kingdoms are Sanskrit words. With the royal patronage, several temples and Buddhist Stupas were built in what is today called Indonesia. These temples not only represent the architectural contributions of India, but these also emphasize the Hindu traditions, beliefs in Hindu Devas, the worship of natural powers and several other ideas of what many scholars call pan Indian culture.

The Balinese consider themselves descendants of the noble warriors from the Hindu Javanese King Bali, who was conquered by Majapahit. A growing number of Balinese are conducting pilgrimages to Hindu temples in Java, most of which have been built in places identified as sacred sites in traditional Balinese texts (often written in old-Javanese language). Balinese have been heavily involved in the construction and maintenance of the new Hindu temples in Java. They further dominate organizations representing Hinduism at a national level. Finally, many Javanese Hindu priests have been trained in Bali. Hindu empires had flourished in Java for a millennium until they were replaced by the expanding Islamic chiefdoms in the 15th century. Today, Indonesia is the world's largest Muslim nation. To a large and growing number of equally 'modern' Javanese, their ancient Hindu past is still very much present.

The purely Sanskrit words are still very common in spite of the devastation by the Muslims and the European colonial powers in the past 800 years.

It is fascinating to know that Indonesian currency notes carry the figure of Ganesha on them. The Indonesian Airlines is named after Garuda (Vishnu's *vahana* – carrier or ride). That, truly, is cultural nationalism accepted

by the Indonesians, the majority of whom are Muslims. Indonesian Muslims do not find it strange to give their children Sanskrit-based (not just Hindu) names. That is another excellent illustration of cultural diffusion. The name of the former President of Indonesia, Meghavati Soekarnoputri is a Sanskrit word. Ganesha (known to the Indonesians as Vinayaka) is still worshipped in many places and there are ornate Vinayaka temples in Indonesia.

Cambodia

Cambodia had cultural relations with India from the beginning of the first millennium. Chinese records of third century A.D. refer to a visit by an Indian mission to Funan in Cambodia. According to another writer — Kang-Tai, a Brahmin by the name Kaundinya came from India and married the local queen. He laid the foundation of a new dynasty. The rulers of this dynasty were greatly influenced by Vedic thought and practices. In this period several magnificent temples were built. Many did not survive the ravages of nature and the series of foreign invasions.

The most famous cities in ancient Cambodia were Angkor Wat and Angkor Thom. These cities were reserved for the palaces and temples for the royalty. The rulers and their subjects had freedom of religion. Many rulers were well-versed in Indian literature, astronomy and philosophy. For example, King Yashoverman had written commentaries on the *Mahabhashya* of Patanjali. Sivasena, a teacher of King Indraverman visited India and studied *Shastras* as a disciple of Shankara. The Sanskrit word *Nagara* (city) was modified by the Cambodian language to Nokor and then to Angkor. *Vatika* is a Sanskrit word for temple or a garden. Thus, the word Angkor Wat (Vat) is derived from Sanskrit and means, the city that is a temple.

Unlike many other countries Cambodia does not minimize Indian influence on local culture. On the contrary, the people of the country generously acknowledge it. Prince Norodom Sihanouk of Cambodia recalled the close cultural ties that have existed for two thousand years between India and Cambodia. He said: "When we refer to 2,000 year old ties which unite us with India, it is not at all a hyperbole. In fact, it was about 2,000 years ago that the first navigators, Indian merchants, and Brahmins brought to our ancestors their gods, their techniques, their organization. Briefly, India was for us what Greece was for the Latin Occident."[10]

At the peak of the empire, Khmer kings ruled over a territory that reached up to what is now southern Vietnam to Yunan, China and from

Vietnam westward to the Bay of Bengal. Of thousands of structures, today, a little more than 100 temples are the surviving religious remains of a grand social and administrative metropolis whose other buildings, such as palaces, public buildings, and houses did not survive because most of thoese were wooden structures.

Over the half-millennia of Khmer rule, the city of Angkor became a great pilgrimage destination. King Jaya Varman used the title *Devaraja* in the ninth century A.D. His descendent Surya Varman (the name literally means — protected by the Sun *Deva*) also used this title.

The Cambodians worshipped Shiva, Vishnu and all the other Vedic *Devas* such as Indra and the Sun. After 500 years of Khmer reign, the region was attacked by the Thai kings, thus ending the dynasty. This brought Buddhism to Cambodia.

The world renowned Angkor Wat temple was built by King Surya Varman in the 12th century. The city of Angkor was his capital and the Vishnu temple was his state temple. Many parts of the temples are now in a dilapidated state due to neglect and natural causes. Its design is a fine specimen of Khmer architecture which resembles the temple architecture of Southern India. The temple is at the top of a mountain. The sanctuary with a monumental gate is built on an elevated platform which is about a 1,000 feet. The entrance has balustrades in the shape of *Nagas* (giant serpents). Adorned with richly sculpted *Devas* on the pillars, the temple is dedicated to Vishnu. Scenes from *Ramayana*, *Mahabharata* and *Bhagvad Purana* are depicted on exquisite friezes at Angkor Wat.

The builders of Angkor Wat were not only interested in creating a temple to honor their deities. They created in its very structure and orientation, a reminder of the greater cosmic order, reflected in both the passage of time, and in the changing rays of the sun at auspicious times of the year. In the last fifty years, scientists and researchers from all over the world have suggested that the architect of ancient Cambodia's Angkor Wat had combined calendrical, historical and cosmological themes into the architectural plan of the temple. The temple reflects a microcosm of the Hindu universe.

The Khmers knew that the earth was a round sphere moving through space because they had inherited that knowledge from India, where it was first recorded in the fourth-sixth century A.D. The Khmer architect-priests, also fully trained as astronomers, had been building temples since the sixth century. The kings and their priests used both the solar and the lunar calendar. They also knew the two halves of the lunar month, each with a

specific name. The records of important events mention whether the date in question was in the waxing or waning half of the lunar month, and on which day of the week. Astronomy is listed more than once among the subjects taught to Khmer kings. Based on the evidence of the stone inscriptions, it is clear that astronomy played an important role in the elite strata of Khmer society.

This building activity culminated in the move to Angkor around 900 A.D. and in the final architectural perfection of Angkor Wat. Never again would Khmer architecture reach the same level of attainment and precision. Only 70 years after the death of Surya Varman, all monument building activity at Angkor stopped and by the mid-fifteenth century, the site was abandoned due to economic reasons and the repeated invasions by the Thai armies.

Angkor Wat Temple of Vishnu

The intricately carved panels also depict the scene from *Srimad Bhagvad Purana*. In one of the panels *Devas* and *Asuras* are seen churning the ocean of milk for recovering the nectar of immortality. This bas-relief is on the east side of the third gallery.

The Western causeway was used for lunar observation and recording lunar measurements at the same time.

> "The study done by NASA researchers has demonstrated how Angkor Wat's architect had established solar alignments between the temple and a nearby mountaintop shrine that took place during the summer solstice. For example, standing at Pre Rup 6 kilometers away at winter solstice, one would see the setting sun over Angkor Wat. Standing near the southwestern corner in Angkor Thom the rising sun at summer equinox will be visible through, or over, the eastern gate."[11]

The temple is admired for its beauty, grandeur and harmony. Today it is a world heritage site and its picture is on the Cambodian flag.

> "The Khmer civilization was the most important, the most brilliant and original in ancient Indo-China. The brilliant achievements of ancient Cambodia were due primarily to the country's wealth of natural resources. No other country of the peninsula could boast of such an unbroken extent of fertile and well-watered land. Cambodia, being a strictly defined and admirably situated geographical unit, was the cradle of a powerful and gifted race. But neither favorable environment nor limitless resources nor years of peace would have sufficed without the spiritual contribution of India. India was the spark that fired the blaze."[12]

Another magnificent temple is at Bontey-Srei, a few miles away from Angkor Wat. Here too, the themes are from the epics and the *Puranas* and the richly ornate structural style is South Indian. Gentle postures and transparent clothing of the sculpted figures suggest the influence of Gupta art. Thus, Khmer art and architecture is considered unique in style and artistic merit.

Cambodia's economic and social life was also affected by Indian culture. As in ancient India, many of the skilled workers in Cambodia were organized in guilds. Weights and measures were in use. There was land as well as sea trade between India and Cambodia touching other islands on the way. According to an account given in the History of the Liang Dynasty, a large number of traders came from Parthia and India. These traders brought silks, diamonds, spices and sandalwood articles.

China

India has been a close neighbor of China. More than 2,000 years ago the people of China and India had friendly contacts and cultural interactions. In 850 B.C., China adopted the Indian Zodiac and the Solar Calendar. Such interactions commenced in the beginning of the Qin Dynasty[13], which gradually increased during the Han dynasty. It reached a climax during the times of Sui and Tang[14]. In the words of Huang Xinchuan, "All the great inventions and creations, both spiritual and material, of the Indian people were introduced into our country with blossom and fruition." Another great thinker and writer of China, Lu Xun, observed: "Since ancient times India has communicated with us, made great presentation to us, whether it is philosophical thought, or religious belief, or morality, or art and literature, even brothers and relatives would not be so generous".[15]

Buddhism first reached China from India via Central Asia in the 1st century A.D. As interest in Buddhism grew, there was a great demand for Buddhist texts to be translated from Indian languages into Chinese. This led to the arrival of translators from Central Asia and India. During a long history of Sino-Indian interactions, a large number of Buddhist monks, scholars, missionaries, scientists, technical experts and merchants went to China. According to historical records, from the end of Han Dynasty till the end of Song Dynasty that is, from 2nd to the 12th century A.D. there had been more than 150 scholars who were involved in the gigantic undertaking of translating the *Tripitaikas*[16] (from Sanskrit or Pali into Chinese). About 70 monk-scholars were from India. During the period from 10th to 13th century, there were 160-170 expert translators in Tiber; of these, 70-80 were from Kashmir and eastern India.

The most famous Indian monks who went to China from India were Kang Senghui, Buddhacinga, Buddhabhadra, Dharmaraksa, Bodhiruci, Paramartha, Kumarajiva, Subhadra sangha, Amoghavajra, Vajrabodhi, Dharmadeva, Devabhaya, Dhanabhadra etc. Those who went from China to India were Fa-hien, Xuanzang, Wang Xuance, Yijing etc.[17]

A few hundred Indian teachers went to China from the first to the twelfth century. They have bequeathed a legacy of about 3,000 works translated from Sanskrit into Chinese. Some well-known travelers were Gunavarman, a prince of Kashmir who reached Nanjing in 431 A.D.; and Buddhabhadra, who claimed direct descent from Amrtodana, the uncle of Lord Buddha. Buddhabhadra was born at Nagarahara which is modern day Jalalabad in Pakistan. He died in China in 429 A.D. Another scholar was Bodhiruci from south India. A Chinese envoy came to the Chalukya court in 692 A.D. to invite Bodhiruci. He reached China in 693 A.D. by sea and translated Sanskrit works. One of the last outstanding Indian teachers in China was Dharmadeva of Nalanda. He was received by the Chinese Emperor in 973 A.D. *Dharma* of Sanskrit language was pronounced as *Dhamma* in Pali (India), *Damo* in the Chinese and *Daruma* in the Japanese language. Bodhidharma, the son of a Kanchi king went to Prajnatara, who was the 27th Bodhisattva in succession from Buddha. He asked him to be ordained as a monk. Following Prajnatara's suggestion, Bodhidharma went to China and eventually arrived at the Shaolin monastery in about 526 A.D. Thus, the 28th (Bodhisattva) patriarch of Indian Buddhism became the first patriarch of the Chinese Chan Buddhist lineage. His first Chinese disciple Huike became the second patriarch of the Chinese Chan Buddhist lineage.

Bodhidharma also brought Yoga of Patanjali to China. Bodhidharma reached the Shaolin monastery at the foot of the Songshan Mountains in north-central China. There he taught the monks special breathing techniques and exercises to develop both their inner strength and their ability to defend themselves in the remote and often dangerous mountainous areas in which they lived. The exercises were supposed to help the monks withstand the long periods of meditation he introduced from his Chan (Zen) school of Buddhism. Based on these exercises introduced by Bodhidharma, the Shaolin monks gradually developed a sophisticated fighting system known as Shaolin Martial Arts.

Thus, the most ancient tradition of Yoga, meditation and austerities came to China and became a permanent part of Chinese culture. Many of the Yoga schools in the USA are run by the Chinese. Many Americans

have thus misplaced the origin of yoga in China—thousands of miles away from the original home of Yoga, meditation and Buddhism.

India owes a debt to China for preserving the Buddhist texts when the Buddhist *Viharas* and Indian university libraries were destroyed by Muslim raiders.

Greece

In Greece, the impact of Indian ideas especially in the field of mathematics and allied disciplines is profound. In ancient Indian literature, Greece is mentioned as Yavana. There is a similarity in the pre-Christian Greek gods and the *Devas* of the Vedas. As in India, the Greeks also worshipped different forces of nature. The coins discovered on the east coast of India bearing the picture of the Trojan horse signify that Greece had thriving trade with India. Through trade, other interaction took place.[18]

Many of the Greeks who settled in the northwest parts of India, especially, the region of Gandhara, adopted Vedic traditions; their presence did not cause any social or religious conflicts.

Archeological discovery of the Heliodorus Column at Besnagar in central India proves that there were many Greek followers who worshipped Krishna and Vishnu.

In the second century B.C. Heliodorus was a Greek ambassador in the court of King Bhagabhadra of the kingdom of Kashi kingdom in India. He constructed the column dedicated to Vishnu. The following paragraph written in Brahmi script appears on the inscription:

"This Garuda-column of Vasudeva (Vishnu), the god of gods, was erected here by Heliodorus, a worshipper of Vishnu, the son of Dion, and an inhabitant of Takshashila, who came as Greek ambassador from the Great King Antialkidas to King Kasiputra Bhagabhadra, the Savior, then reigning prosperously in the fourteenth year of his kingship."[19]

According to Steven J. Gelberg, "Heliodorus was presumably not the only foreigner who converted to Vaishnava devotional practices- although he might have been the only one who erected a column, at least one that is still extant. Certainly there must have been many others."

Iran

According to the Vedic narratives, after their defeat during the Ten King's war[20], Druhyus, Panis, Parsas and Bisnois moved to Parthia (Persia). This region is now called Iran. These people followed Vedic practices and had *Yajna* ceremonies. Many of their ceremonial practices and beliefs were

later incorporated in Zoroastrianism. Sun worship and the fire ceremony are still an important part of their belief system.

The Persian rulers were supporting the Zoroastrian religion till they were thrown out of Persia when the region came under Muslim control. Unfortunately the architectural monuments were also destroyed in the process.

Japan

The recognition and worship of Vedic Devas went to China and Japan through Kashmir. The Japanese followed the Vedic tradition of meditation. *Dhyâna* (meditation) of the Vedic tradition is known as *Ch'an* in China and Zen in Japan. As in the *Vedic Dharma*, the ultimate objective became devotion to *Îúvara*[21] (*Úiva*). Many more Vedic ideas were also taken to Japan by the sea route from South India and Southeast Asia. This explains the specific transformations of some Sanskrit terms into Japanese through Tamil phonology. For example, the Sanskrit word *homa* which is the Vedic fire ceremony (also known as *Yajna*), became *goma* in Japanese language. The person who gives the initiation is the *Acharya* (Sanskrit). The Japanese word for Acharya became *achari*. The Sanskrit mantras in Japan are written in the Siddham script of South India.

Around 100 A.D. under the patronage of the Kushana emperor Kanishka, the fourth great council was held. Kanishka ruled from 78 to 120 A.D. During this council, monks of the Sarvastivâdin School compiled a new set of rules. This became the basis of the Mahayana sect of Buddhism for many Buddhist countries of that time.

Even today, the Vedic fire ceremonies are central to religion in Japan. It consists of mantra, *mudra*[22], and *mandala*. The *Devas* are invited by the prayers to Ganesha (known as *Kangitan* in Japanese). The Japanese consider Ganesha as the remover of obstacles. Japanese also rub powdered incense on their forehead.

The temple structures have some similarities with Indian temples. There is a circumambulatory path around the temples. Inside the temple two *Mandalas* are made. There is the main hall and then the sanctum sanctorum where the main deity of the devotee is installed.

In May 2002, Okura Shukokan Museum of Fine Arts, Tokyo, arranged an exhibition called Gods Derived from India to Japan. The exhibition focused on the close links between Ancient India and Japan. The main attraction was the art work donated by Yamanouchi, a collector. The entire collection of Yamanouchi consists of 350 statues, sculptures, reliefs and paintings. Seventy of these pieces were on display in this exhibition.

Yamanouchi also wrote three books about how India and Japan are bound by their roots in Hinduism and Buddhism. The article[23] says, "Yamanouchi identifies Benzaiten, the Japanese goddess of good fortune, with Sarasvati; Seiten of the Jogan Period with Ganesha; and Enma, the Japanese lord of hell, with his Indian counterpart Yama." Interestingly, as a young boy, Yamanouchi was fascinated with the Hindu gods that he saw during his weekly visits to Buddhist temples. He recalls, "My parents were very religious. I saw many Buddhas at the temples, but I also noticed many Indian Gods protecting the central Buddha figure."

Lebanon

As discussed in section 2, chapter 9, Druhyus dynasty ruled the northwest of India some 5,500 years ago. In repeated battles with the Purus, they were defeated. They moved north and northwest. They settled in several regions of Central Asia. They carried their belief system and ceremonies with them. The Vedic relics that we come across today in these regions are from Druhyus occupation of these lands. After the onset of Islam in Arab land, many of them were killed or converted. A small community of Druhyus (Druze as they are known today) still practice a synthesized version of Vedic beliefs.

The Druzes can be found today in Lebanon, Syria, Israel, and Jordan, in addition to a few thousand members in Europe, North America, and Latin America. Their total number ranges between 5,00,000 and a million. The Druzes have a distinct set of beliefs and practices, and their scripture, *kutub al-hikma* (wisdom books), is a collection of epistles[24] and correspondence between luminaries. The influence of the Qur'an and Greek and Indian philosophy is apparent in Druze scripture and faith. For instance, the Druze discipline combined elements of the Greek and Hindu philosophy of presenting God as transcendent (above everything material) and beyond human conception,[25] and the Hindu notion of transmigration of souls after death. Among Druze scriptures, which are composed of epistles between luminaries, is a collection called Epistles of India, suggesting that some of these luminaries had visited India. Based on these philosophies, the Druzes explain their own ideas about the absolute (Supreme Being), the human attitude towards nature, karma and life after death.[26]

Malaysia

Malaya is a Sanskrit word. According to the legend, this place was developed by the expert architect, Malay. According to another legend his daughter

was married to Ravana, the king of Sri Lanka. However, the earliest historical records mention the Malay kingdom of Srivijaya. The Chinese pilgrims who stayed here on their way to India refer to this dynasty and the empire of Srivijaya. The approximate period of this empire with its capital at Palembang was from 7th to 10th century A.D. Besides this sketchy literary evidence there are several inscriptions, some dated 856 A.D. and the archeological evidence. All this suggests Hindu presence in the area.

Over the centuries people from various parts of India migrated to Malaysia. The vast majority of them went from southern India, especially from the state of Tamil Nadu. From southern India a significant number of Telugu, Malayalam, and Kannada speaking people also went. In a recent article, Martin Vengadesan pointed out that since, "historically, Tamils formed a majority among Malaysian Indians, they soon became linguistically dominant among South Indian communities. Even though (the south Indians) brought many languages to the country, in Malaysia, Tamil became the lingua franca among the South Indians. This meant that Telegu-speaking families, for example, eventually became more fluent in Tamil."[27] Just as in Ceylon and Cambodia, in Malaysia also, Hindus celebrate many festivals such as Ugadi, Diwali, and Ramanavami.

Archeological Evidence

In the Musi River basin, a large number of relics including several stone statues have been found. Ancient Buddhist *Stupas* have also been found in the same area. The title Maharaja for the king in the records (and the use of many other Sanskrit words) indicates Sanskrit either being the language of the people or as a significant component of the languages of the archipelago. Religious practices of the people as in other parts of the archipelago included worship of Shiva, many other Hindu *Devas* and Buddha. The economy of the Malaysian kings thrived on the maritime trade with southern India and later with China. The early Hindu and Buddhist influence declined with continuous invasion by the Turks and the Arabs. The area remained under the colonial powers from Europe for over two hundred years.

Today, Malaysia is a Muslim country. Most of the population known as Malay, claim their descent from the Indonesian islands of Java, Sulawesi, Sumatra or as far as India.

A small Hindu minority has been living in Malaysia for thousands of years. On festival days, Malaysian Hindus gather around Batu Cave temple outside Kuala Lumpur and offer prayers. Several other ancient temples are there, many of which are being destroyed by greedy developers with the

help of government officials. Such destruction will eventually lead to the destruction of historical evidence of mankind's ancient history. Harmonious coexistence of temples and mosques is rare. However when it does exist, both communities take pride in it. This news item dated Jan.08 is an encouraging sign. An excerpt from of the news item is given below:

> 'Hindus, Muslims worship together in Malaysia' "KUALA LUMPUR: A mosque and a Hindu temple located a few metres from each other in Kampung Baru, the oldest Malay residential area in downtown Kuala Lumpur, are making 'religious harmony' more than just a catch phrase, a media report said on Monday.
>
> Situated at Lorong Raja Muda Abdul Aziz, the two shrines have had devotees of their religious faiths worshipping without any communal problems for the last four decades."[28]

Middle East

Central Asia and the Middle East were also influenced by the Vedic ideas. The ancient Sun God Yave (*Yayash* in Sanskrit) "continued to be worshipped in northern Arabia till the time of Moses. According to Sita Ram Goel, Kaaba was a center of Sun-worship. This is also confirmed by whatever memories of the pre-Islamic Hajj pilgrimage survive in Muslim accounts. Another writer, David King says, "up to the time of Mohammed, the Kaaba was "already known to have been a shrine associated with Sun worship".[29]

Nepal

Nepal has been a part of the Indian subcontinent. It was a separate kingdom but often in the past 2,000 years, parts of the kingdom were annexed by Magadha or other neighboring kingdoms. All through history most Nepalese have been either Hindus or Buddhists. Lumbini, the place which was visited by Rama during his exile and where Buddha was born in 6th century B.C., is now a part of Nepal. Today, there are many Hindu and Buddhist temples there. The followers of Buddhism and Hinduism share many common traditions and ceremonial practices.[30]

New Zealand

According to a scientist from New Zealand , Dr. Guna Magesan, there is a great deal of similarity in the cultures of New Zealand and India. The very ancient Maori language in New Zealand is very similar to Sanskrit.

The customs and ceremonies of Maoris resemble the Hindu customs of India.

Magesan lists 185 Sanskrit words that are similar to Maori words.[31]

Sri Lanka

Sri Lanka has a long history. Its name first appears in the Indian epic *Ramayana*. During the time of Iksvaku king Rama, Ravana was the king of Sri Lanka. He was a devotee of Shiva. According to the accounts given in the *Ramayana* and other historical documents, Ravana made pilgrimage to the Himalayan abode of Shiva. The Kailash temple of Ellora testifies to the story that Ravana tried to take Shiva to Sri Lanka. The events of *Ramayana* are a part of the oral history of Sri Lanka.

Recently, the tourism minister of Sri Lanka identified some 50 sites associated with the main events narrated in the *Ramayana*; such as kidnapping of Sita, her abode in Sri Lanka, Hanuman's visit to Sri Lanka and Rama's invasion of Sri Lanka.[32] The various spots are spread across the island, beginning from its northern tip at Nagadeepa, believed to be Hanuman's entry point to Lanka. The southern tip, Donara, is the place where Rama began his first attack on Ravana. The main battleground, identified as Yudagannawa, is a wildlife sanctuary now. However, according to Kalaiselvam, no vegetation grows in the area except grass. According to S Kalaiselvam, Sri Lanka's tourist minister, 'Following the Trail of *Ramayana*' is based on research findings that link the sites to Lord Rama, his wife Sita and King Ravana. The list of sites includes the names of places such as Seethaeliya, Rama Bodha, Ussangoda and Roomassala special temples in the areas where Ravana is believed to have held Sita captive, Ravana's own palaces and dairy farms. The tourism board has also identified the exact spot as Chilaw and Muneswaram where Rama performed ceremonies to cleanse him of the sin of killing Ravana, a Brahmin.[33]

Sri Lanka's department of tourism has also identified five "airports" where Ravana parked his fleet of small aircrafts (known as Pushpak Vimana), the aircraft he used to abduct Sita when she was in exile with her husband Rama on mainland India. Ravana—the ruler of ancient Lanka—a brilliant Brahmin and devout Shiva disciple, not only excelled in charting an air route, but was also a pioneer in "underground transport". The remains of intricate tunnel networks, leading to palaces and battlefields that Ravana spread across the island are still there.

According to another legend from the southern part of Sri Lanka, when Lakshmana (Rama's brother) fell ill, Hanuman wanted to bring some

medicinal plants from the Dronagiri Mountain in the Himalayan chain to cure him. Since he could not find the plants, he brought the whole mountain and dropped it at Unawatuna, which is near the present Galle harbor. Unawatuna means 'here it fell'. Today, the area is known for its medicinal plants.

In the famous Buddha Vihara at Kelani, near Colombo, there is a representation of Rama handing over the kingship of Sri Lanka to Ravana's brother, Vibheeshana, who sided with him in his conflict with Ravana.[34]

People in the neighboring villages have always revered these sites. This is a part of their oral history and tradition. It is interesting to know that people in these places have a strong sense of history and folk lore. They are proud of their association with the Hindu epic, even though 90 percent of the people in the *Ramayana*-related areas are Sinhalese Buddhists.

There is not much evidence indicating when Buddhism arrived in Sri Lanka. However during King Asoka's rule, an ambassador from Sri Lanka came to Magadha and wanted to build a monastery there. Asoka granted him the permission. Many Buddhists of Sri Lanka make pilgrimages to places in India associated with the life of Lord Buddha.

Syria

In his book, *India in Greece*, E. Pollocke writes: "The term 'Syria' derived from the Indian tribes that, under the appellation of Surya, or the Sun, gave its enduring name to the province of Suriya, now Syria." Pollocke adds that once upon a time Hinduism prevailed all over ancient Mesopotamia, and people worshipped the Vedic Sun-God.

Tibet

Tibet being the closest to the Indian subcontinent has been greatly impacted by Indian literature, philosophy and religions. First Hinduism, then Buddhism and lastly Tantra affected the composite religion of the Tibetans.

Recently, remnants of several Tibetan translated versions of *Ramayana* have been found in Dunhuang Tubo Tibetan Documents. Professor Ji Xianlin pointed out in his *A Preliminary Study of Ramayana*: "It was not until the 19th century that *Ramayana* was translated into English, French, German, Russian, Japanese, and other languages. Chinese versions of Buddhist *sutras* contain only fragments of the translation of *Ramayana*. Now in Dunhuang Tibetan manuscripts we find the Tibetan translation of *Ramayana* made in the 8th or 9th century. It was the earliest translation of *Ramayana*." From this it can be seen that the earliest translation of *Ramayana* was made in the ancient Tibetan script of Tubo.

Ramayana was not the only literary work translated in Tibetan language. A study of Dunhuang Tubo Tibetan Documents suggests that in the Tubo period, many well-known Chinese and Sanskrit literary works were translated into Tibetan language. Influence of Indian literature on the style and themes of Tibetan literature has been remarkable.[35]

Tibet and Indian kingdoms exchanged emissaries and many scholars went to Tibet to spread the message of Buddha.

Buddhism arrived in Tibet in the first few centuries of the Common Era. Since then, Tibet has been a Buddhist country. The head of Tibetan Buddhism is the Dalai Lama. After the Chinese invasion of Tibet, most of the monks and people were killed. Many people along with their spiritual leader, the Dalai Lama moved to India. A few dilapidated monasteries are still there. The surviving Tibetans live in poverty and constant fear.[36]

Since 1950, Tibetan people are asking for their freedom. Though they also appealed to the world community, their plight has not changed.

Recently, Indian organizations and international human rights activists have voiced their concerns about the repression of Tibetans. One such meeting was between the *Acharyas* of India.

> "Members of the Hindu Dharma Acharya Sabha noted with sorrow the violence which the traditionally peace-loving people of Tibet and their religious leaders are encountering while asking for religious and cultural autonomy for their native land.
>
> The Acharya Sabha expresses its dismay at the religious and cultural deprivation that the Tibetan people are facing. The Chinese heritage and culture are themselves a symbol of human achievement. Similarly the ancient culture and heritage of Tibetan people are also precious for humanity as a whole. The Acharya Sabha feels that it should be possible for these two peoples to find an amicable way to safeguard the self esteem, heritage and culture of the Tibetan people."[37]

Thailand

In the spirit of international cooperation, Vedic Indians welcomed visitors from foreign lands. Many Indians also visited Thailand (known as Siam). It may be noted that the boundaries of these kingdoms often changed and many parts of the history of Cambodia and Thailand are common. According to the available accounts of the history of the Thai Culture for the last 2,000 years, the period of three dynasties—Dvaravati Empire (457-657 A.D.), Srivijaya Empire (657-1157 A.D.) and Khmer Empire (957-1257 A.D.) indicate the existence of Vedic Sacraments, values and

ceremonies. It may be remembered that Khom Empire of Thailand included Cambodia, parts of Laos, Vietnam and Malaya. It was the time when the synthesis became the most significant, exemplary and ever inspiring feature of the Thai Culture. Later, Thais adopted many sacraments from Chinese philosophies of Confucius and Tao (6th century and third century B.C.). Combining these with Hindu and Buddhist philosophy, they provided a new dimension to their day-to-day practices.

It was due to the characteristic of synthesis that the Thais adopted virtues like theism, cleanliness, comprehensiveness, gaining of knowledge, forbearance and tolerance in day-to-day practices from the Vedic Culture. When during the 3rd Century B.C. Buddhism was flourishing in India under Asoka, two priests of high stature reached Nakorn Pathom with the Hinayana school of thought. They were accorded a grand welcome and allowed to propagate Buddhist Values. Compassion for all living things became an important part of Thai culture and life; even today it occupies the foremost place in Thai values. During the Srivijaya Empire, many other scholars belonging to the Mahayana school of thought reached Thailand. As a result Thai people adopted some more Buddhist and Hindu values such as, five precepts (*Panchasheela*—five principles), threefold training (*Triratna*—three gems), law of action (Karma*)* and the middle path to avoid suffering.

Today, Hinayana Buddhism is the State Religion of Thailand. The most significant aspect of Thai culture is that Thailand is a unique example of the synthesis of various values.[38]

Vietnam

Hindu influence is noticeable in the few temples that survived the invasions by Arabs and then the Europeans. Vietnam is a communist country. Privately, people follow both Buddhism and some form of Hinduism. The picture[39] of an ancient temple at Po Nagar, Vietnam and some more pictures are given at the end of the section.

Gypsies

Hundreds of stateless gypsies live in poverty in various part of Europe. Some of their customs and beliefs are very similar to Hindu beliefs. It is not clear when the gypsies moved from India. Some writers believe that during the *Dasrajanya War* they had to flee from the subcontinent. They carried with them some of the traditions of India. They lived in temporary shelters. During the Nazi Holocaust, it is believed that about one million gypsies were killed.

Recent Influences on the Western Mind

Towards the end of the 19th century, Swami Vivekananda brought the message of Vedic ideas and Hindu beliefs to America. He addressed the conference of World Religions held at Chicago.

Since then, many philosophers, poets and writers absorbed Vedic philosophy and read the original text of *Bhagvad Gita*. In their writings, they expressed these hitherto unknown ideas about individual life and its place in the universe. Some of the writers from the 19th-20th century were R.W. Emerson, Walt Whitman, Mark Twain, Roman Rolland, T.S. Eliot (from America and England). Julius Robert Oppenheimer, the principle developer of the atomic bomb, stated "The Vedas are the greatest privilege of this century." During the explosion of the first atomic bomb, Oppenheimer quoted several *Bhagavad Gita* verses from the eleventh chapter, such as:

"Death I am, cause of destruction of the worlds..."

Henry David Thoreau said: "In the morning I bathe my intellect in the stupendous philosophy of the *Bhagvad Gita*... in comparison with which... our modern world and its literature seems puny and trivial."

Yoga and meditation (based on Patanjali's *Yoga Sutra*) are common practices in the western world today. More and more people believe in the theory of Karma and the concept of reincarnation.

> "According to a 2003 Harris poll, 40 percent of the people aged 25 to 29 believed they would return to earth in a different body after they die. Popular New Age movements such as Scientology and Kabbalah teach some version of reincarnation, and bestselling books, notably by the Yale-trained psychiatrist Brian Weiss and by the therapist Carol Bowman have brought these concepts into the mainstream."[40]

Impact of Indian Ideas and Culture in Brazil

India's diverse traditions travel to all continents.[41] According to Fr Joachim Andrade, "Today about 5 million Brazilians are practicing regular yoga and several dance and art schools have mushroomed all over Brazil. Major Hindu influence began in Brazil; to be exact, in 1953, when yoga was taken by a French man, who took the Indian name as Shivananda, who started a yoga academy in one of the towns of Brazil. Later, many other forms entered such as the Hare Krishna Movement, *Vedanta* Philosophy, Indian Classical Music and finally Indian Classical Dance. The Brazilians got hooked to Indian music, vegetarianism, food and culture and there has been no stopping its popularity."[42]

Yoga and Indian dances especially Bharata Natyam have become very popular in Brazil. Fr Andrade learned Bharata Natyam in Mysore India. After reaching Brazil, he did his doctorate in Anthropology. His topic of research was 'Dance as a ritual- a case study of Indian Dance'. His student, Maria Moreira Da Silvais, a yoga teacher was so fascinated by Bharata Natyam that she learned to be a dancer. According to her, "I learnt the techniques and perfection of the movements of the Indian classical dance. I am greatly impressed by the visuals, the grace, the music and the expressions of Bharata Natyam. Having stayed here for two months and learning dance I feel dance comes from within and it is very satisfying to make the movements, articulations and gestures. It has made me what I am."

"No doubt Indian culture has crossed the seven shores to find routes in the distant land of Brazil. It only goes to prove that art and spirituality makes a great combo to make a striking impact."[43]

Thus, in recent years, Indian culture and spirituality has deeply affected the Brazilians. Many people have visited India and brought more ideas and spiritual practices to Brazil.

Iowa University of Mahesh Yogi – A Case Study

Spread over a vast 272 acre campus, Maharishi International University is located in Fairfield, Iowa.[44] The campus community has students from more than 60 countries, comprising many cultures and religions. Based on the Vedic traditions of Yoga and the development of consciousness as a necessary step for success in every field of knowledge, the student body lives and learns together as a world family.

Maharishi Mahesh Yogi started teaching Yoga and transcendental meditation in the early fifties in India and other countries. In the next 20 years, there were 40,000 TM centers all over the USA. Through his lessons and techniques, he taught that the purpose of life is the expansion of happiness, and that every human being can effortlessly unfold his or her infinite potential. With a university degree in physics, Maharishi decided to make the ancient Vedic science and meditation a part of education. The educational programs translate Vedic wisdom in modern scientific understanding and terminology to provide an excellent academic and holistic education for students from around the world. He also wanted to take meditation to mainstream thinking by providing scientific proof that meditation is effective in reducing stress, and inducing calmness and mental peace.

A Brief History of the University in the USA

In 1974, the university moved from its tiny campus in California to Fairfield, Iowa. Dr. Wallace became MIU's first president, to establish the new university. MIU was accredited by the Higher Learning Commissions of the North Central Association, the oldest and largest accrediting body in the United States. In 1979, the university started offering Ph.D. programs.

In 1995, MIU officially became Maharishi University of Management. The new name emphasizes that gaining deep knowledge and experience has a powerful practical value, it enables every student to fully manage his or her life. The faculty of the university consists of renowned PhDs from various universities. World renowned physicist John Hagelin is the Director of the Institute of Science, Technology and Public Policy at the university and a professor of physics. John Hagelin and several other scientists at the university have meticulously conducted over 600 scientific studies on the effects of meditation, and have been awarded nearly $20 million in federal research grants over the years to continue their investigations. The university aims at taking education from just an understanding of the specific laws of nature to the holistic understanding of the unity of existence." Today, Maharishi University of Management is known for its commitment to Consciousness-Based education. This type of education aims at unfolding the vast creative potential of a student that often remains unused in his life. It also helps channelize life in harmony with natural laws.

Based on the same principles, the campus has elementary and secondary schools.

The seven goals of the university are: a. to develop the full potential of the individual, b. To improve governmental achievements, c. To solve the age-old problem of crime and all behavior that brings unhappiness to our world family, d. to help students to fulfill economic aspirations, e. to maximize the proper use of environment and all other resources, f. to achieve the spiritual goals for the well-being of humanity. Thus, the key role of the university is to help the students gain total knowledge to manage everything in their own life by developing their inner potential.

As the university is expanding, it is adding more wings in the campus. The new wings are designed according to the principles of *Vastu Sastra* and *Vastukala*. The university student center (called Argiro Center) has been built according to the ancient design principles of Maharishi Vedic Architecture along with the most advanced green technologies.

What are the Green Technologies?

The green technologies as applied in the building of Argiro Student Center are listed as follows:

1. Unique Vedic architectural design elements to promote life in harmony with natural law
2. Right Orientation: According to Maharishi Vedic Architecture, orientation of a building has a dramatic and easily measured impact upon the quality of life of its occupants. The sun's energy is most nourishing when it is rising. The Argiro Student Center is oriented to the east to bring the greatest benefits to the health and vitality of its occupants.
3. Right Placement of Rooms: Because the sun has different qualities of energy as it moves across the sky, the Argiro Student Center is designed so that these energies correspond to the specific activities performed within the different rooms of the building, for example, dining, studying, socializing etc.
4. Right Proportion: Proportion is a key to successful design in nature. Right proportion in the Argiro Student Center connects the individual intelligence of the occupants to cosmic intelligence.
5. Natural, Non-Toxic Materials and Solar Energy: Vedic architecture promotes natural and non-toxic construction materials. It also emphasizes filling rooms with sunlight and fresh air.
6. Energy Efficiency: Energy savings in the Argiro Student Center comes from heat exchangers, which capture 80% of the heat from the air that is being exhausted from the building and use it to help heat the incoming fresh air.
7. Day lighting: Large, triangular windows cast light deep into the Argiro Student Center on the two upper floors.
8. Day lighting sensors automatically turn off the lights when enough daylight is present. Insulation: The Argiro Student Center is insulated 50% better than average. The heating and cooling systems also have a higher-than-normal efficiency.
9. Non-toxic Materials: The Argiro Student Center is constructed with non-toxic materials, including over 13,000 square feet of bamboo flooring. Carpeting is green certified, and the flooring in the serving areas is Marmoleum, which is natural linoleum made with 100% natural ingredients: linseed oil, cork, limestone, tree resin, and natural minerals.[45]

Spread of Indian Music

Indian music has a history of about 5,000 years. *Sama Veda* and later Bharat Muni laid down elaborate rules about various aspects of Indian music. The Vedic mantras have precise rhythm schemes and can be sung. Though Indian Music and its history are explained in the next chapter, here a brief idea is given about its influence on the evolution of Persian and European music.

According to Stephen Knapp,[46] "German author Weber writes in his book, *Indian Literature* (p. 297), The Hindu scale – *Sa, Re, Ga, Ma, Pa, Dha, Nee* has been borrowed also by the Persians, where we find it in the form of *Do, Re, Ma, Fa, So, Le, Ci.* It came to the West and was introduced by Guido d'Arezzo in Europe in the form of *Do, Re, Mi, Fa, Sol, La, Ti* ... even the 'gamma' of Guido (French gramma, English gamut) goes back to the Sanskrit word *gramma* and Prakrit word *gamma*, and is thus a direct testimony of the Indian origin of our European scale of 7 notes."

This is discussed in great detail by Ethel Rosenthal.[47] She says, "In *The Indian Empire*, Sir William Wilson Hunter remarked that a regular system of notation had been worked out before the age of Panini and the 7 notes were designated by their initial letters. This notation passed from the Brahmins through the Persians to Arabia, and was then introduced into European music by Guido d'Arezzo at the beginning of the 11th century."

Current Application of the Key Concepts in Other Countries

Contributions of India in the field of mathematics and other sciences have been discussed in the last chapter. Today, besides, the numerous mathematical concepts, scientific discoveries and inventions, Yoga, Yoga therapy and Ayurveda are increasingly becoming a part of the thinking of the rest of the world. Experiments in architectural designs as per *Vastukala* are also being tried. The news item below clarifies this point.

Architectural Contribution to Civilization: Washington D.C's Healthiest Building to be Vedic

Two developers, the Tower Companies and Lerner Enterprises have combined the environmental aspects and Vedic Architecture[48] to create the healthiest office building in Washington D.C. The Tower company and Lerner Enterprises of Maryland of North Bethesda, MD, announced the development of 2,000 Tower Oaks Boulevard, the world's largest commercial building where the developers are using the Green/Vedic

design and development, combining LEED (TM) (Leadership in Energy and Environmental Design) "Gold" building certification, for superior air quality, high recycled content, and energy and water efficiency, with Vedic architectural principles of proper Orientation, Placement and Proportion, to enhance occupant's productivity, health and success.[49]

Summary

Most of the countries of Southeast Asia came under the cultural and religious influence of India. This region was broadly referred to by ancient Indians as Suvarnabhumi (the Land of Gold) or Suvarnadvipa (the Island of Gold). Vedic Indians must have charted Java, (Yawadvipa), thousands of years ago because Yawadvipa is mentioned in India's earliest epic, the *Ramayana*. Sugriva, the chief of Rama's army dispatched his men to Yawadvipa, the island of Java, in search of Sita. The whole area was so much influenced by India, that according to a European scholar who wrote in 1861, "the Indian countries situated beyond the Ganges hardly deserve the attention of History."

Hinduism followed by Buddhism was widespread in Southeast Asia. Even now there are Hindus in Bali, Sumatra, Malaysia, Cambodia, Burma, Java and Vietnam. There are native Brahmins in Bali, Vietnam and Thailand living there for hundreds of years, who claim to be descendents of the 2nd century Brahmin rulers. Indian culture and *Dharmas* had a profound influence on the beliefs, religious ceremonies and practices, arts and architecture of other countries.

Hindu traditions spread to various countries in the Far East and the Pacific Islands. The time frame is not known but it is certain that before the spread of Buddhism, Hindu temples and traditions were already there.

With the new evidence coming from material sciences, one can conclude that there was a westward movement of people from the Indian subcontinent and with those people went the elements of languages like Mleccha and Sanskrit to be absorbed in the existing languages of several central and western Asian regions.

Concepts to Understand

1. The advent of Indians in Southeast Asia has hardly a parallel in history.
2. The ethnic affinities between the prehistoric people of India and those of Suvarnabhumi, and the contact between the two regions may well go back to the remotest antiquity.

3. The fire ceremony should be read as, lighting the fire, creating light, to create a medium, to the creative force beyond, that which we also call God.
4. Tourism should be encouraged to sacred places such as Ayodhya and Lankapuri (Sri Lanka). These places are not only of historical significance but also are a part of the heritage of the neighboring countries and their people.
5. Many of the ancient temples of Southeast Asia are Hindu and not Buddhist.
6. India did not invade countries nor conquered territories but through cultural interchange, India left a lasting impact on many countries of the world. That impact continues to grow.
7. The Culture of India could not only maintain itself, but it also left a deep impact upon the inhabitants of the whole of the world.
8. The foremost feature or characteristic of the Indian Culture is its comprehensiveness and the willingness for synthesis. This, more than anything else, led to the spread of Indian culture to nearby and far away regions.

Questions

1. How did Indian culture spread to far off lands?
2. What are the highlights of Indian culture in Indonesia?
3. What is the evidence of Hindu influence in Cambodia, Thailand and China?
4. How did China help preserve Buddhist manuscripts written in India?
5. Is there any impact of Indian culture on the pattern of life in the USA? Provide specific examples.
6. What are the dangers that ethnic minorities face in the modern day world? Based on two to three newspaper reports about Malaysia and Bangladesh, discuss the dangers of religious fanaticism.
7. Discuss the consequences of Chinese invasion on the social and religious life of Tibet.
8. How can international organizations like UNESCO prevent world heritage from being destroyed?
9. The class should be divided in groups and each group should develop a plan to protect museums and ancient monuments.
10. What was the world like for the Europeans up to the 16th century?

11. Cultural diffusion over the past two millennia has created unique cultures in Asia. In the USA the Chinese and the Indians have brought their own traditions and beliefs. Should those practices blend in the American culture or should these be dropped in the process of assimilation?
12. How do green technologies help the environment? Will the application of these technologies help reduce global warming?

Enrichment Activity

1. The following news item appeared on this website: 'Vediculture — The World's Ancient Vedic Heritage'[50]

'Two ancient Vedic Swastika Mosaics from Jewish Synagogues were discovered in Maoz-Haim, Israel and Ein Gedi, Israel'. Discuss the news item and explain if the evidence indicates the spread of Indian culture in this part of the Middle East in ancient times.

Critical Thinking Activity

1. Read the following paragraphs and discuss in one page how the historical evidence gets destroyed. Also discuss how the heritage of mankind becomes a victim to religious fanaticism.

"There are Hindu temples in Vietnam, Cambodia, Indonesia, and Thailand. These reflect the influence of Hindu art, religion and philosophy in far away countries. In many other countries, Hindu temples and Buddhist *Viharas* were destroyed by invaders from Central Asia."

Students may study the impact on history of civilization of mass hysteria to demolish age old statues of Buddha in Afghanistan using explosive material. Many people protested the decision but the world watched the sad episode of vandalism. Such incidents of routine destruction of ancient temples are happening daily in several countries even today, even as the UNESCO and the world watch. Historical monuments and mankind's heritage is thus being destroyed.

2. Evaluate the following quote from 'Alberuni's India' and discuss how the Arab world was affected by the Indian science of astronomy and mathematics. This was the condition of the Arabs around the 11th century A.D., described by a devout Muslim himself. Can this observation be considered unbiased and therefore correct?

"However, the Arabs are illiterate people, who can neither write nor reckon. They only rely upon numbers and eyesight. They have no other medium

of research than eyesight, and are not able to determine the lunar stations without fixed stars in them."[51]

3. Evaluate this statement made by Henry Mouhot in 1860. Why does he suggest that the Angkor Wat temple is without a comparison?

"It is grander than anything left to us by Greece or Rome. To obtain any idea of its splendor one must imagine the most beautiful creations of architecture transported into the depths of the forests in one of the more remote countries in the world."

Endnotes

[1] Excerpts from the speech: 'Developed India' by Dr. APJ Abdul President of India (2003-2007)

[2] *Maya* is the Sanskrit word for illusion

[3] *Astika* means believer in *Vedic Dharma*

[4] *Anka* or Inca means digit in arithmetic, however, so far there is no other evidence to show interaction between India and the Central American civilizations.

[5] Check section 3, chapter 26 for more details

[6] *Indian Wisdom and Its Spread Beyond India*, Ludwik Sternbach

[7] Ravana was the king of Sri Lanka in the *Ramayana* period

[8] Review section 3, chapter 21 for more details of sculpture and art in Afghanistan

[9] Pallavas were rulers of Eastern and Southern parts of Deccan peninsula of India. They ruled for a long period of time. Check section 4, chapter 35

[10] Quoted in 'A Tribute to Hinduism: Thoughts and Wisdom spanning continents and time about India and her culture' by Sushama Londhe

[11] Published in *Science Daily*, Feb. 1998

[12] Quoted in, *Angkor: Art and Civilization,* Bernard-Philippe Groslier

[13] Han dynasty 2nd Century A.D.

[14] Sui dynasty 6th century A.D. and Tang dynasty, 7th century A.D.

[15] Source: article- 'Tan Yun-shan: A Cultural Envoy between China and India' by Huang Xinchuan

[16] Buddhist rules and laws

[17] Check section 3, chapters 22 and 23 for details about the visit of Fa-hien and Hiuen-tsang in the 4th and the 7th century.

[18] Check section 3, chapter 26 for more details.

[19] Source: *Journal of the Royal Asiatic Society*, quoted in the paper, 'The Heliodorus Column' by Jack Hebner & Steven Rosen

[20] Ten King's War is called *Dasrajanya* War, check section 2, chapter 9

[21] Îúvara is Ishwara and Úiva is Shiva

[22] Position of fingers of the hand in a certain gesture

[23] Source: *Japan Times,* 'A Link Between Hindu Gods and Japan'

[24] Epistles are formal messages of the seers and leaders.

[25] Source: 'Proof of Vedic Culture's Global Existence- Sacred People, Sacred Books, and Sacred Places in Lebanon: Druze Sages, Scriptures, and Shrines' Link for the information- www.haigazian.edu.lb/News.jsp?id=40

[26] Courtesy: Dr. Hasam Timani, Professor in Religious Studies and Philosophy at Christopher Newport News University, Virginia, USA

[27] Source: 'Which Indians?' by Martin Vengadesan; link: http://thestar.com.my/lifestyle/story.asp?file=/2008/4/20/lifefocus/20998720&sec=lifefocus

[28] Source: Posted on http://tinyurl.com/yr779w , Jan.08

[29] Source: 'Astronomical Alignment in Medieval Islamic Architecture' by David King, 1981

[30] Check section 2, chapter 15 for more on the subject

[31] Source: "Maori customs of New Zealand: Similarity with Hindu Customs" by Dr.Magesan

[32] Link for full story: Lanka unveils 'Trail of *Ramayana* tour package' http://kalyan98.wordpress.com/2008/01/17/tour-package-trail-of-*Ramayana*-in-srilanka/and http://www.hindu.com/thehindu/holnus/002200801172042.htm

[33] Source:http://timesofindia.indiatimes.com/India/Lanka banks on *Ramayana*_to_woo_tourists/articleshow/2709165.cms

[34] Source: http://newspostindia.com/report-31665

[35] Source: '*Ramayana* in Tibet and China: a tribute to Ji Xianlin- article in China Tibetology, No.1 March 2004. Kalzang Gyai/translated by Chen Guansheng

[36] Detailed account is given by Reinhold Messner in his book, *The Crystal Horizon.* Messner made a trip to the Mount Everest starting from the Chinese side. He trekked through Tibet on his way to the Everest peak. His account of the devastation and the life of these spiritual people make a sad reading. Since his narrative is an eyewitness account, it is to be considered primary source of recent history.

[37] Just before the Olympic Games in China in 2008, news about the condition of Tibetans appeared in Indian newspapers.

[38] Source: 'Common Features of the Cultures of India and Thailand', Ravindra Kumar

[39] Source: http://www.davidmetraux.com/images/adventure/vietnam/large/redruins.jpg

[40] Source: 'Heaven is A Place On Earth', Lisa Miller
Link: http://www.newsweek.com/id/96398

[41] Quote from the article, 'Spreading Indian flavor in Samba Land', Florine Roche

[42] Fr Joachim Andrade, a Mangalorean Svd priest who has been working in Brazil for the last 17 years.

[43] Florine Roche

[44] Today, this place is called Vedic city.

[45] Source: Ken Chawkin, Media Advisory person from Maharishi Management University; announcement dated Jan.08

[46] Source: : 'Proof of Vedic Culture's Global Existence', by Stephen Knapp

[47] 'The Story of Indian Music and its Instruments' by Ethel Rosenthal

[48] Vedic architecture is known as *Vastukala*. Check section 3, chapter 26 for more details

[49] Link for the story: http://www.TowerCompanies.com and http://www.LernerEnterprises.com

[50] Link: http://groups.yahoo.com/group/vediculture/

[51] Source: *Alberuni's India*, vol.II

Chapter 29

Music, Dance and Drama in Ancient India

This chapter has several Sanskrit words from Indian musical terminology. An attempt is made to explain these words or give an English equivalent wherever possible. There is some overlapping material because many aspects are common to music, dance and drama.

Indian musical and dance system is called Gandharva Art. In this chapter, we will discuss various aspects of music, dance and drama from ancient times. Later additions and offshoots of Indian Gandharva Arts will also be discussed briefly. This will enable the readers to get an understanding of the diverse traditions of Indian music, dance and drama that have emerged down the centuries. Indian music is the most dominant form of Asian music, popular not only in Asian countries but also in the Middle East, Russia and other states carved out of the former Soviet Union. About Indian classical music, Bharat Gupt aptly points out,

> "It has the most complicated and varied system of rhythmic cycles and is still based upon the ancient concept that the human voice is the foremost expression of musical emotion and therefore all instruments should also be played to imitate and accompany it. Consequently, it also preserves the lyric and its literary content as a major feature but does not maintain a system of written notational score to be followed while performing."

The performer sticks to the lyrics and the norms of the selected *Raga*, but most of the structure and variations are created by the performer to enhance the mood of the words and the theme of the lyrics. Music in India is as old as the *Vedas*. Vedic hymns and chants were composed in a variety of rhythm schemes with a lyrical quality. They were meant to be sung as the meaning of the word *Gayatri*[1] suggests. Singing devotional songs, chanting and dancing were all part of various devotional ceremonies.

Music—both vocal and instrumental has a long history with carefully developed guidelines given in the *Sama Veda*. Thus musical renditions are part of self-expression, quest for spirituality and to some extent entertainment. Music is to elevate the mind, body and the spirit through the vibrations of sound. Indian classical music brings mind to a peaceful state and often changes the moods.

Vedic hymns are metrical and are recited in rich spontaneity and lyricism. The *Sama Veda* is the original source of Indian music and the lyrical compositions are given at the top of each chant. Chants set the mood and focus on spirituality.

Svaras

Svara, also known as *Sura* is the musical note or the tone defined as the 'sound that rules by itself'[2]. In other words, it is so pleasing that it needs no support. The impact of the *Svaras* (notes) is very powerful in expressing emotion not only in music but also in poetry, theater and oratory.

Recitation of the *Rig Vedic* chants uses only three notes—*Udatta*, *Anudatta* and *Svarita*. *Sama Veda* enumerates seven notes. Vedic chants still use three notes. Thus classical Vedic music is kept separate to preserve its impact and nature. Non-Vedic music came to be known as Gandharva music. Today it is known as Sangeet.

The scale of the seven notes given in the *Sama Veda* is known as a *Saptak* (or a scale of seven *svaras*). There are three scales used. The singer starts from the middle scale and moves to higher and lower scales thus enhancing the mood of the song. The Indian *Saptak* consists of two trichords – *sa, re, ga* forms one trichord and *pa, dha, ni* forms the other. These are placed on either side of the *Madhyam* (middle) note. A sequence of any seven notes is called a *Murchchana*. Besides these seven notes, Indian classical music has five flat notes as well.

Unlike the western music tradition, Indian musicians have freedom to choose *Shadaj* (*sa*) from any place in the scale. 'Another interesting point about Indian classical music is that there was no concept of a fixed pitch for the notes in Ancient India'[3] and it is not there even today. Singers do not always use words; they carry the emotion through sound (called *alap*) and often drag their voice from one note to the next (known as *taan*).

Each *Raga* has a certain fixed number of notes going up the scale (*arohi*) and coming back to *Shadja* (*avarohi*).

A vocal rendition is accompanied by several instruments. The rhythmic beat is provided by the tabla player and it is the beat that enhances the

mood of the song. *Veena*, *Sitar* or *Tanpura* (string instruments) are played in tune with the *raga* of the song. Many singers play the harmonium while singing. *Tanpura* (also called *Tambura*) is used to provide a constant drone for all kinds of music.

Sounds and *Ragas*[4] relate to the moods and rhythms of nature. There are six *Ragas* of ancient times and thirty six *Raginis*. *Ragas* consist of five, six or seven notes. A musician may start with the basic notes and through seamless variations transcend to a state of forgetfulness of the time, space, surroundings and even the self, thus, taking the listeners closer to the Supreme Being. All through this he comes back to the original *Raga*. It seems like musical Yoga. Through a long evolutionary history, Indian music has developed many new *Ragas*. At present, there are about seventy two fundamental *Ragas*.

Ragas change according to the seasons and help one to awaken in tune with the environment and nature. *Ragas* express those changes, for example, *Hori-Kafee* depicts the splash of colors in nature after severe winter weather), *Bahar*, the array of blossoms, *Basant*, the full blooms, *Malhar*, the clouds and rains, thus, through changing variety of notes and themes, one's inner self is kept in tune with the nature. Through this alignment with the nature, one attempts to reach the Divine.

Ragas change according to the time of the day also. *Ragas* like *Bhairav* and *Todi* are sung in the early morning, as the day progresses music changes from *Asawery* to *Basant*, *Kedar* and *Bhimplasi*, then in the evening to *Bihag*, *Desh*, *Darbari* and so on.

The Concept of *Rasa*[5]

A distinct feature of Indian musical theory is the relationship between melodies, lyrics and emotions like fear, pity, valor, anger, love, desire etc. Specific notes were mentioned as capable of arousing specific emotions and a system of their use in melodies is explained in *Natya Sastra*.[6]

Musical compositions express and release flow of nine types of emotions, which are: 1. compassion, sorrow and pain, 2. mirth and ludicrous, 3. depression and disgust, 4. anger, 5. amazement, 6. peace and quite, 7. valor, 8. fright and, 9. love, devotion and surrender.

Out of seven sharp notes and five flat notes, by stressing one or the other note, a musician is able to create one or the other of the nine emotions. For example, by emphasizing *Nikhaad*[7] and flat *Rishabh*, feelings of sorrow, pain and tragedy are conveyed.[8]

Also by changing the beat of the *Mridangam*, the singer or the instrument player helps in creating the desired mood. Thus, sound and vibrations express reverence, devotion, surrender and purpose. The purpose of music is to be close to the Divine, by purging the subconscious of the negative ideas and tuning the focus inward.

Famous Musicians of Ancient India and their Works :

Bharata Muni – *Natya Sastra*, 5th Century B.C.

Sarangadeva – *Sangeetratnakara*

Lochana – *Raagtarangani*

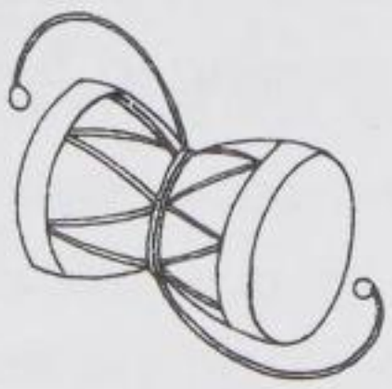
Ahobala – *Sangeeta Parijaata*

Hridaya Narayanadeva – *Hridaya Prakasha*

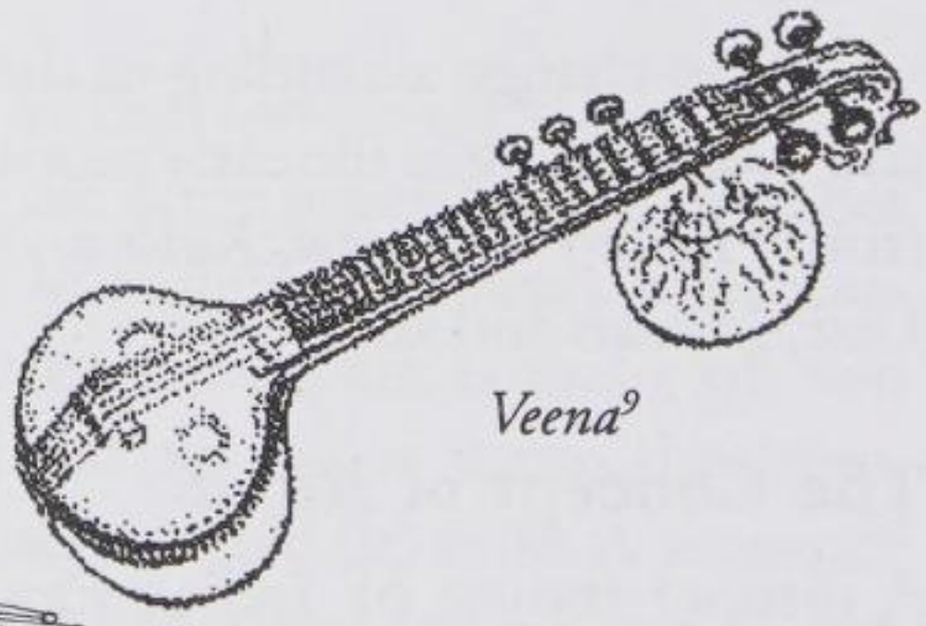
Srinivasa – *Raagtattavabodha*

Ancient Instruments

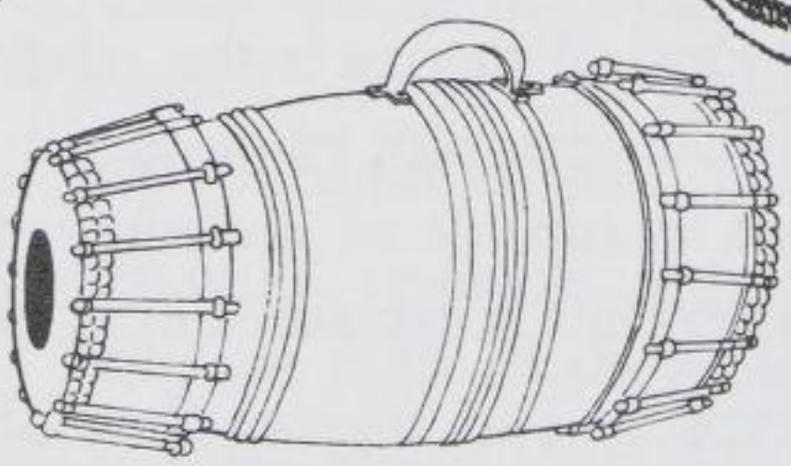
Veena (a string instrument), *Mridangam* and Tabor (percussion instrument), Flute and *Been* (wind instruments) are the oldest musical instrument of India. According to the legend, the creation emerged from the rhythmic beat of a small drum – Tabor, played by Nataraja. Below are the pictures of these instruments.



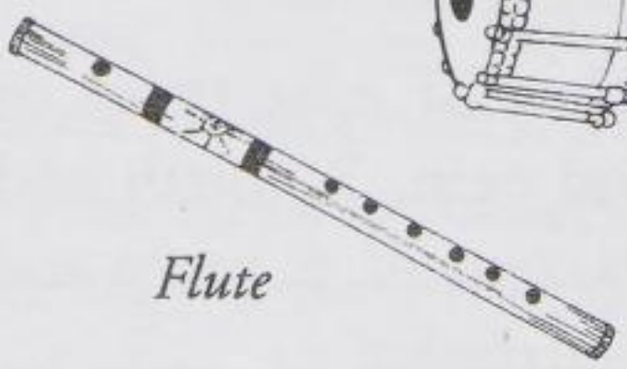
Tabor



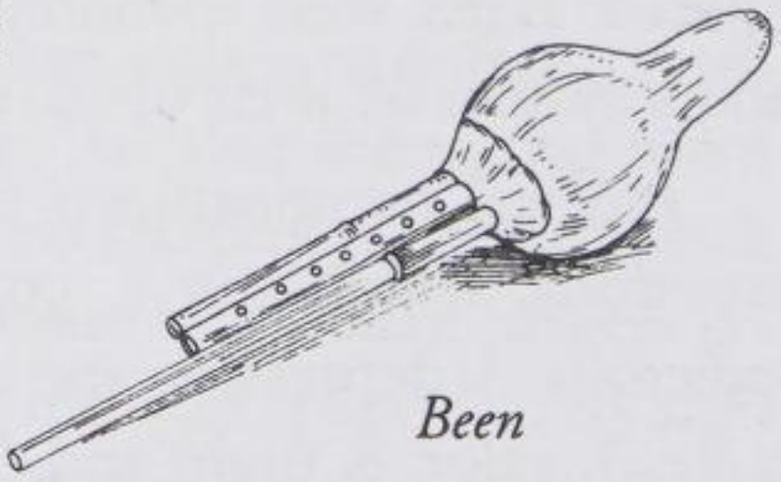
Veena[9]



Mridangam



Flute



Been

Listening to music

Music appreciation from the audience is an important part of a concert. Many people in the audience, who recognize the *Raga* and its fine variations, show their appreciation by nodding their head, and applauding in the middle of the rendition.

Beats and *Taalas*

Beats or *Matras* are called *Taalas*. *Taalas* are the beats that provide rhythmic cycles to a *raga*. There is unique intricacy and rhythmic sophistication in Indian music. There are *taalas* ranging from a 3 beat cycle to 108 beats within a cycle. The most popular *taalas* are those that have 5, 6, 7, 8, 10, 12, 14, and 16 beats to a cycle.

The division in a *taala*, and the stress on the first beat (called *sum*), are the most important rhythmic factors. While there are *taalas* with the same number of beats, they may differ because the division and accents may not be the same.

In vocal music, a drummer will accompany a singer either in slow, medium, or fast tempo at the beginning of a song in whatever *taala* the singer chooses. He will do the same when he accompanies an instrumentalist. Like *ragas*, *taalas* also have their own characteristics. Some of the older traditional *taalas*, such as, *Chautal* (12 beats) and *Dhamar* (14 beats) are played on a two-faced drum known as *Pakhawaj* or *Mridangam*. Today, most vocal and instrumental music is accompanied by the tabla, which is a two-piece drum.

Devotional Music

The use of poetry, music and dance has always been considered the most natural method of worship in *ashramas*, temples, *Viharas* and at home. According to *Yajnavalkya Smriti*, knowledge and practice of music, both vocal and the instrumental leads to liberation. The hymns of *Rig Veda* for the Vedic *Devas* like Indra, Agni, Varuna and Mitra chanted using three notes is the first example of the use of classical music for worship. Devotional music thus began with these chants. In these prayers, we see fine poetry and mankind's highest aspirations expressed in music. Later, the *Sama Vedic* tradition which was called *gaana* (song) rendered the hymns in seven notes with the perfection of a musical scale. *Veena* was used as an accompaniment. It is also known that sometimes harps were employed for accompaniment. From the Vedic age onwards, singing has been the most important way of worship. People carry on their daily chore and keep chanting or singing devotional songs. Devotional singing is an important part of social and religious ceremonies. In the temples, devotional singing by the community is called *Sankirtan*. In the post-Vedic phase, hymns were composed in Sanskrit and other prevailing languages. The prayers were addressed to various *Devas* and the Supreme Being.

The great temple complexes built from 2nd century B.C. to the 16th century A.D. maintained a big retinue of dancers and musicians who performed several times a day before the deities. Often composer-poets were also employed to make new compositions for the musicians. Buddhism and Jainism developed devotional music that consisted of intricate chants and mantras. Buddhist chants like "*Buddham Sharnam Gachhami* ..." also use three notes and are modeled after *Rig Vedic* chants.

Indian Music Down the Centuries

For almost five thousand years, most of the musical compositions were related to the epic stories and were a way of expressing devotion to the Supreme Being. The three faith traditions of Indian origin have commonalities. The temples, monasteries, *ashramas* and the royal courts supported and patronized these arts. With the Turkish invasion in India in the beginning of the twelfth century A.D. and the establishment of various Islamic Sultanates, all arts including performing arts received a major blow. The Sultanates and the Islamic clergy destroyed temples, universities and *gurukulas*. The devastation continued for nearly six centuries rendering all the artists supported at temple-complexes, theatres, and courtesan houses homeless.

The new tradition that survived in Northern India was more secular, absorbing some Persian influence. Most of this music expressed themes of love, pangs of separation and seduction. Encouraged by the royalty, the new genre of music flourished, resulting in the emergence of musical styles such as *Quwalli*, *Khayal*, *Thumris*, *Dadras* and *Gazals*.

During the same time, devotional music was composed by eminent poets in vernacular languages. Brijbhasha, Avadhi, Bhojpuri and Prakrit were used by these writers.

Though a detailed study of these developments is a part of History of the Medieval and Modern India, it must be mentioned that new varieties continued to emerge all through the succeeding periods of both Islamic, Hindu and British Raj.

About the present state of music in India, Bharat Gupt has aptly pointed thus, "The variety of music performed in the length and breadth of the nation is still staggeringly large. From the thousands of years old chanting of the Sanskrit mantras of the four Vedas, to the latest film hits, there are tribal and ritual songs of marriage, birth, naming, clothing, bathing, leaving home and death etc. in 28 languages and 600 dialects across the subcontinent. Indian film industry, which also found its feet very early,

consolidated the immense variety of music from all parts of India and transmitted it to the global listener."

Dance

Tradition of dance in India is as old as the origin of music.

It is said that the rhythmic patterns in the nature and vibration of elements are a display of various dances. In the Southern Indian state of Tamil Nadu, there is a temple dedicated to Nataraja. Sculpted in stone, there are 108 poses (called *Karanas* in Sanskrit) of dance, said to have been performed by Shiva at the time of creation. Legend also says that the site of the temple is the spot where Nataraja performed the dance at the request of sages Vyagrapaada and Patanjali[10].

These sculpted poses show Shiva performing the dance in the Bharatnatyam tradition.

Shiva is known as Nataraja because, his dance of creation, transformation and destruction created the cycle of time. Today, physicists are observing and analyzing the significance of the metaphor of Shiva's dance for the cosmic dance of the subatomic particles of matter. It is interesting to note that this parallel was first discussed by noted physicist, Fritijof Capra. He said, "Modern physics has shown that the rhythm of creation and destruction is not only manifest in the turn of seasons and in the birth and death of all living creatures, but is also the very essence of inorganic matter. For the modern physicists, then, Shiva's dance is the dance of subatomic matter."[11] The ancient *Rishis* saw the Universe as an inseparable web, all parts of which are not only interconnected and dynamic but are also in constant movement.[12] Indian dancers express this vibration and interaction through appropriate gestures, expressions and lyrics. The same point is discussed by Carl Sagan in his book, *Cosmos*.

Dancers performing Bharatnatyam[13]

Natya Sastra written by Bharat Muni[14] is considered the oldest text about Indian classical music, dance and theater. Many scholars believe that Bharat Muni belongs to 5th century B.C.

"*Natya Sastra*[15] is primarily a text for theatrical arts. But as dance, gestures, music, poetry, costume, masks and decoration are essential ingredients of theatre, the *Natya Sastra* is regarded as a fundamental text for them also. Its ideas of emotional enjoyment (*bhava-rasa*), heroines (*ashtanaayikas*) and exciting background (*vibhavas*) have influenced Indian sculpture, architecture, painting, folk poetry, dress and even the art of conversation."[16]

Natya Sastra explains the guidelines of *Natya* – the dramatic elements in a dance performance. The text teaches about *nritta*, the rhythmic movement of the body in dance. Both *Natya* and *Nritya* elements suggest flow of feelings (*Rasa*) and mood (*bhava*). Four techniques are used to convey the theme or story of the dance. These techniques are:

1. *Angica* – body gestures – *abhinaya*
2. *Vachica* – music, lyrics, rhythm
3. *Aharya* – makeup and costumes
4. *Sattvica* – physical manifestation of a mental and emotional state

Thus dance and drama are interwoven and interconnected. The six most famous classical dances from various regions of India are: *Odissi, Manipuri, Kathakali, Bharata Natyam*, *Kathak* and *Kuchipudi.*

The nomenclature of these ancient dance traditions was done at a much later date. Except Kathak, all are ancient dance traditions of India. Kathak emerged as a distinct dance style after the 12th century using both epic stories and non-spiritual themes. Besides these dance forms, each region of India has distinct varieties of folk dances. In Punjab for example, *Bhangra* is the dance form whereas, Gujarat's folk dance is known as *Garba.*

Though each dance style has entertained Indian audiences (and now the audiences worldwide) for centuries, *Bharata Natyam* has continued to hold a predominant stage. Readers may like to know a few facts about this dance style.

Many beautiful traditions of the southern state of Tamil Nadu are visible in the dance form called *Bharata Natyam*. The dancer wears Kanchipuram[17] silk saris when she performs *Bharata Natyam*. The dancers also wear elaborate jewelry studded with ruby colored stones set in different gold plated designs. This type of jewelry has adorned the deities in the

ancient temples of Tamil Nadu. The performance is dramatized with the melodies composed by renowned South Indian composers. These compositions are written in Sanskrit, Telugu, Tamil and Kannada. These are the languages of the southern states of Andhra Pradesh, Tamil Nadu and Karnataka respectively. Most of the really beautiful compositions are sung in Karnataka Music.[18] Choreographers use various instruments, namely, the *Mridangam,* the flute, the *Sarasvati Veena* and the violin. To watch a dance recital, is to watch all these images simultaneously and to understand that they all come from an old and revered culture.

People generally believe that *Bharata Natyam* means 'Indian Dance'. This is incorrect. It is also probable that it was named after the great sage Bharata, who wrote the *Natya Sastra.* But what is most possible is that it stands for three vital organs of the dance, namely, expression, melody and rhythm. *Bha* stands for *bhava* (expression), *Ra* for *raga* (melody) and *Ta* for *talà* (beat or rhythmic cycles). Therefore, *Bha-ra-ta Natyam* is the dance of expression, melody and rhythm.

Bharata Natyam is a sophisticated and energetic dance form. It is very precise. The basic postures of the style are 'balanced' positions. This means that the weight of the dancer is placed squarely down the center of the body. It is not deflected and the hip is never used. A whole variety of movements can be seen in *Bharata Natyam.* There is an emphasis on the striking of the floor with the feet.[19] There are jumps in the air. There are pirouettes as well, which are called *bhramaris.* And there are movements done with knees making contact with the floor in the pose of offering prayers (called *Vandanas*). *Bharata Natyam* is like a diamond—it has many sides to it and each of these sides lends to its luster. It has melody and rhythm, poetry and drama, expression and sculpture, color and tradition. These aspects blend, to make it one of the most popular dance forms in the world today.

Trained by professional Gurus at a very young age, it takes the dancers several years to reach the point where they can perform different numbers one after the other. Some of these numbers are slow, some fast. Each number enables the dancers to express different emotions and bring out four to five *Rasas* in one number. Lyrics, beats, body movements - *Mudras*[20] and expressions convey the mood of various aspects of the main theme. In ancient times, temple halls and long lobbies were used for the performances. In many of the temples, the sculpted figures of *Devas* and *Devis* are also in dancing poses.

Most temples used to have several musicians and dancers who gave performances dedicated to Shiva and other *Devas*. Dance in India is a spiritual practice. The dancers observe strict discipline such as fasting, meditation and expressing respect for the teachers. Shiva, as Nataraja is the Supreme Yogi. The great Indian dancer Balasarasvathi states, "Bharata Natyam is nothing but Natya Yoga" and Shiva himself has been the supreme teacher.

In India dancing is not seen as an art in the western sense—a mode of entertainment and pleasure. Dance has been a spiritual tradition with all the elements of prayers—devotion, surrender and reverence. Dance and music were central to the lives of the general public as well as royalty.

Often in various cities of America and UK Indian folk and classical dances are performed during the celebration of India Festival and other cultural programs.

As more and more classical musicians and dancers are visiting different parts of the world to give performances, a basic understanding of Indian music and dance becomes essential for appreciating musical performances.

Drama

Classical Sanskrit literature is mainly divided into two parts *drshyakavya* (plays and performance material) and *shravyakavya* (poetry or prose earlier to be recited/and now to be read). Broadly speaking all dramatic literature comes under *drshyakavya* and prose-poetry under *shravyakavya*. India has a long tradition of theater arts. For centuries, the story of King Rama has been dramatized. A nine-day long performance is staged every year in many Indian cities and even in some cities of neighboring countries like Indonesia.[21] The drama ends on the tenth day when Ravana, the King of Lanka is killed.

Similarly, a dramatized version of *Mahabharata* has been popular since ancient times. Recently, Peter Brook brought to stage an 11 hour play about *Mahabharata*. Using an international cast, he brought out salient features of the epic on stage.

Many famous dramatists lived in Ancient India and enriched the traditions of Indian drama.

Some famous playwrights of Northern India who lived up to 1,000 A.D. are given below:

King Sudraka wrote a play, *Mrichchakatika* (The Little Clay Cart). Bhasa, a third century B.C. classical dramatist is credited for twelve plays. The

most renowned of these are the *Svapna-vasava-datta* and *Charudatta*. He also dramatized King Rama's story. Ashvaghosha wrote a play *Shariputraprakarana*. Kalidasa wrote three plays.[22] Bhavabhuti wrote three plays, *Uttararamacharita, Malatimadhava* and *Mahavira Charita*.

Bhatta Narayana wrote the play *Venisanghara*. Dinnaga wrote the play, *Kundamala*. Vishakhadatta wrote the famous play *Mudrarakshasa*. This play about Chandragupta Maurya's rise to power brings out the role of two great personalities of those times—Chanakya, Chandragupta's advisor, and Katyayana, his prime minister.

King Harsha wrote three plays, the most famous are *Ratnavali* and *Priyadarshika*. It is to be noted that these are a small number that have survived out of the several hundred plays whose titles are referred to in other writings but are not available now.

Natya Sastra by Bharata Muni (5th century B.C.) is a treatise of drama and its various elements. In about 36 chapters, he describes how to set the stage, how to introduce the theme, how to use background music and how to use various emotions and *Rasas*. He also explains how the use of different languages can provide result in a more realistic portrayal.

These fine details are seen in the enactment of Bhavabhuti's *Mahavira-Charita*. Bhavabhuti was born in the 7th century in Vidarbha. His real name was Neelkantha. He was patronized by king Yashoverman who ruled from Kanauj between 725-752 A.D. He became a genius playwright. Bhavabhuti occupies a unique place in the world of Indian drama. He brought out the eloquence of spoken Sanskrit in his plays. His plays also stand out for representing a careful balance of all the *rasas*. Most dramatists avoided *Bhayankara Rasa* (mood of horror). Bhavabhuti used this *rasa* deftly.

The very philosophy of Hindu *natya* was not only to provide a cheerful and jolly entertainment to public on occasions but also to depict rich ethical values and learning. To achieve this, many dramatists built their themes upon the prevailing social traditions and popular tales, with which audiences were already familiar, drawing often from the *Mahabharata*, the *Puranas* and the *Ramayana*.

While enacting the play *Mahavira-Charita*, the actors cannot show on the stage, the actual building of the bridge to Sri Lanka.

Therefore, to the directors' rescue, Bhavabhuti makes use of a clever literary work-around. He presents the story of Setu (bridge) construction to the audiences not directly, but through a dialogue between Ravana and his wife Mandodari. This episode occurs in the sixth act of *Mahavira-Charita*.

In the play, Mandodari narrates the tale of Setu-construction to her husband. Later, Lakshmana (Rama's younger brother) explains to Sita how the army built the bridge by bringing the rocks from the great mountains.

Bhavabhuti uses at least two languages- Sanskrit for the royal class and the intellectuals and Prakrit for the common people.

Salient Features of Ancient Indian Dramas

Indian dramas used all the stage effects. The theater was and still is known as *Rangashala.*

The theater was divided in three parts, the back stage and the dressing room (*nepathya*), and the main stage (*Rangmanch*). The stage had two entrances for exiting and entering artists. The stage was built according to the architectural principles known as *Vastu Sastra.*[23] Live music was used and the musicians arrived first to set up their instrument and bring the audio effects for the drama. The narrator or the prologue speaker (known as *sutradhara*) would then commence with the introduction. The main characters of the drama were the hero and the heroine .

Vidusaka (a comedian) was a distinctive feature of ancient theater, figuring prominently as the character of the jester. *Vidusaka* provided the comic relief and sometimes was a part of the drama itself. According to Bharat Gupt, "The *Vidusaka* is a humorous foil to the fickle, melancholic or sentimental passion of the royal hero. He was also part of the humorous tradition of Indian theater that consciously cultivated a ridiculing of the intellectual elite. It was a legitimized way of criticizing the pretensions and hypocrisy of that class. The Indian *Vidusaka* was a royal companion and not a court jester".[24]

Thus, drama, music and dance have been an expression of human and cosmic unity. According to Bharat Gupt, dramatists, musicians and dancers attempt at, "Transforming reality, not just depicting it".[25] They also provided a deep emotional arousal and a consequent psychological relief to the audience called catharsis—(a term first used by Aristotle) and *rasa* as stated by Bharata Muni.

Sacred drama required the perfection of production techniques that were *synesthetic.* Music, dance and *semiotized* gesture were all unified to produce a unified performance text. The dance-drama traditions of India are plays with dance and music. These plays use all three elements and express various *Rasas.* The pure dance or *nritya* and the expressive dance called *Natya* are part of their acting techniques. These actors are well-

trained in these aspects of dance. These dance-dramas are called, *Natya* or *Nritya Natakas.*[26]

Summary

Both instrumental and vocal music has a long continuous history in ancient India. It started with Vedic chants sung in three notes. Devotional songs were set in *ragas* and sung during auspicious ceremonies. Music is known as *Naradishiksha* after the famous *veena* player Narada Muni. The grammar and structure was provided by Bharat Muni in the fifth century B.C. However, the fundamental concepts needed to expand upon the *ragas* and to create new ones were already well-formulated by the time of *Natya Sastra.* They continue to be practiced till today with minimal change of names.

Indian theater is the most ancient and multifarious form of Indo European and Asian theater with a detailed textual, sculptural, and dramatic effects. Its influence had extended in antiquity beyond the subcontinent into China and the Far East and in the modern times through films and concerts into the Middle Eastern, Slavic, Greek and North American countries. Dramatic performance as defined by the term *Natya* is a very comprehensive concept that includes communication in the arts of music and dance as much as in theater. That tradition is still preserved.

Readers may like to watch the movie *Mahabharata* by Peter Brooks, which is a short version of the 11 hour theater drama.

Concepts to Understand

1. Indian classical music has very ancient beginnings.
2. It is still popular all over the world.
3. Famous singers travel all over the world enchanting millions of people.
4. Famous sitarist, Pandit Ravi Shankar has visited almost every country holding concerts and his two daughters Anoushka Shanker and Nora Jones are accomplished musicians in their own right.
5. Shiva is considered the King of Dance; as he performs the dance of creation, transformation and annihilation.
6. To understand the Hindu Concept of Cosmic Nataraja we have to understand the Hindu Concept of dance itself. Dance is also a way of communication with the Supreme Being. It is a spiritual tradition.
7. In India dance is considered *Natya Yoga.* Udayshanker, Gopikrishna and Indira Rehmani have been famous dancers who held dance performances all over the world.

8. In drama, the use of two or three languages shows the distance between the commonly used dialects by ordinary people and the cultivated speech by intellectuals and the royalty.

New Word to Learn

- Catharsis – release of the emotions through arts especially through tragic drama

Questions

1. What is the meaning of the word *rasa*? What are the names of different *rasas*?
2. What are the main elements of good drama?
3. How is the role of *Vidusaka* different from that of the court jester?
4. Why do dramatists use different languages for the gentry, hero, royalty, the intellectuals and common people?
5. How are Indian classical dances different from the western dance styles? Which *rasa* is most prominent in western dances?

Enrichment Activity

1. Evaluate the following paragraph and explain if the theatrical traditions were flexible. Also list some of the features of modern stage setting that are similar to the ancient ideas. This quote is from the *Natya Sastra*:

> "In an open performance, not done in a theatre, the *Ranga* or stage may be made to face the wrong direction (that is, other than the east) under the orders of the patron. With the musicians at their back, the direction faced by the players is called the 'east' by theater experts. After fixing the direction and the dimensions of the *Ranga*, it may be said that such a *Ranga* can have up to six doors and to suit the conditions of *Natya* these can face the east or the west. When the stage has not been set in accordance with the prescribed measure and direction, then by seeing the doors and the position of the musicians, one should mentally fix the east. (NS 13:65-67)."[27]

This indicates the flexibility and the popularity of the theatrical traditions.

Critical Thinking Activity

After reading this chapter, explore the following questions and give reasons for your answer.

1. Who experiences *Rasa*, the poet, the actor, the spectator, or all of them together?
2. Is the emotional experience of all these people the same or does each spectator have his own distinctive experience?
3. How long does *Rasa* last? Does it change the inner psyche of the spectator?

(Most of the information given in the chapter emerged out of lengthy discussions with my revered teacher, late Krishna Dalal. Hence, this chapter is dedicated to him.)

Endnotes

[1] That which can be sung

[2] This definition was originally given by Matanga and Abhinavgupta. It is now the accepted definition of *Svara.*

[3] Quote from *Natya Sastra*, chapter 28, 'Ancient Scales of Indian Music' by Bharat Gupt

[4] *Raga* means color, emotion, and mood.

[5] *Rasa* (Sanskrit) means juice or fluid. It also means nectar or extract. In music, it refers to the release of emotions—both in the performer and in the spectator or the entire audience.

[6] These definitions are based on the grammar of music written by Bharat Muni.

[7] The names of seven notes are *Shadaj*, *Rishabh*, *Gandhaar*, *Madhyam*, *Pancham*, *Dhaivat* and *Nikhaad* – short version of these are *sa*, *re*, *ga*, *ma*, *pa*, *dha* and *ni*. Except *Madhyam* and *Pancham*, the five notes have flat notes as well.

[8] The corresponding Sanskrit words for these *Rasa* are – *Karuna*, *Hasya*, *Vibhatsa*, *Rousha*, *Adhbhuta*, *Shanta*, *Veer*, *Bhayanaka* and *Sringaar.*

[9] Sketch of *Veena* – Courtesy: Gayatri Kapur

[10] This temple is called Chidambaram temple about 100 kms from Chennai.

[11] Advanced level students may check Fritijof Capra's article, 'The Dance of Shiva: the Hindu View of Matter in the Light of Modern Physics' also his book, *Tao of Physics.*

[12] This point is also explained in the chapter on Hinduism. Check the explanation of the term *Jagat.*

[13] Photo courtesy: Malini Srirama

[14] Bharata Muni was a teacher (*Acharya*) who collected all the material left by earlier teachers (*Acharayas*) like Tumburu, Narada and Nandi and narrated it in a well-structured manner.

[15] Currently the best available *Natya Sastra* text is based on the manuscript of the *Abhinava-Bharati.* This is a commentary written by Abhinavgupta, 11th century A.D.

[16] *Natya Sastra* by Bharata Muni, translation of chapter 28 by Bharat Gupt

[17] Kanchipuram is a temple town famous for silk fabrics of dazzling designs and colors.

[18] See section 4, Southern India for more information about Karnataka Music.

[19] Dancers wear bells *(ghunghroos)* around their ankles to enhance the effect of the beat.

[20] *Mudras* are hand gestures. There are several *mudras*; each *Mudra* has a specific name, for example, making an O by joining thumb and the index finger is called *Dhyana* or *Giyan Mudra.*

[21] Readers may remember that Indonesia formerly a Hindu and Buddhist state is now a Muslim country.

[22] For more details about Kalidasa check section 3, chapter 22

[23] Check section 3, chapter 26 for information about *Vastu Sastra.*

[24] In Muslim courts, the court jester entertained the kings with his jokes and wit.

[25] *Natya Sastra*, chapter 28, 'Ancient Scales of Indian Music' translated by Bharat Gupt

[26] *Nataka* literally means drama

[27] Quote from *Natya Sastra*, chapter 28, 'Ancient Scales of Indian Music' translated by Bharat Gupt

Chapter 30

Women in Ancient India

In this chapter, the position of women according to the ancient texts and the actual social practices will be discussed. The concept and practices will also be placed in a global context in order to remove some of the misconceptions and consequent misrepresentations surrounding the topic.

Key points to consider are:

- Social structure—patriarchal or matrilineal
- Rights of women in India and in other countries in the ancient times.
- Attitudes towards women in the family—in the clan and the society in general

In order to discuss what the role of women in India was, it is essential to understand how women in general were treated all over the world during ancient times. This chapter provides a historic perspective and creates a global context.

Indian society was mostly patriarchal; children were given the last name and *gotra* of their father. However, it was a common practice to address children by their mother's name. For example, the mother's name was used for Arjuna when he was addressed as *Kounteya* (Kunti's son), *Yashodhanandan* (Yashodha's son) for Krishna, *Gandhariputra* (*putra* means son) for Duryodhana etc.

With a few exceptions, society adopted a uniformly patrilineal model. Matrilineal society has not been a norm; but it has survived in some small pockets in Kerala, India. These matrilineal families are called *marumakkathayam*. In this family system, property is passed on to the female issues and inheritance is also determined through the female line.

The system does not go as far back as the *Mahabharata*. It evolved several centuries later when constant warfare and confusion necessitated some orderly way of passing on the property to the surviving family. The matrilineal system allows the matriarch to inherit the property and raise her family. Children assume the last name of the mother and are also supported by mother's male relatives. Some Nairs of the region have been following this system as well.

Did Matrilineal Model Exist Anywhere Else in the World?

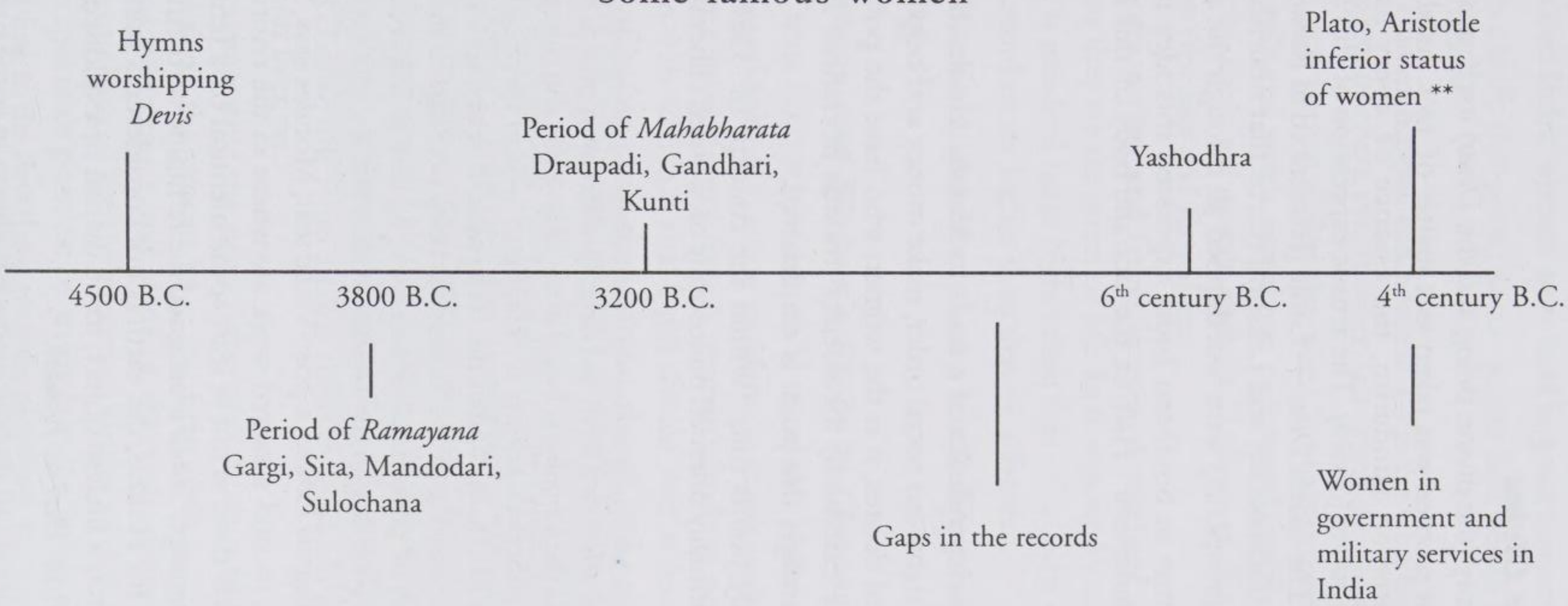
Recorded history books have not shown the incidence or the evidence for such a practice. Women all through the ages lived in male dominated societies. They had no rights, no choices in married life and no socioeconomic freedoms. History of Europe and Central Asia (non-Hindu) has no mention of concepts such as, feminism, secularism, gender equality, and respect for women or freedoms for women up until the 19th century. Their subjugation continued down the ages. It was only in the first quarter of the 20th century when women got voting rights in the USA and in a few other European countries. *Constitutional equality did not assure them socioeconomic equality or the end of gender based discrimination.* The social setup is still patriarchal, where children inherit the last name from the father and women adopt the last names of their husbands. Male children are preferred.

Position of Women in Indian Society – The Past and the Present

Although this chapter is primarily about women in ancient India, we will discuss modern times and position of women and especially the crimes against women. It becomes necessary because modern sciences (of recent origin) such as anthropology and sociology discuss ancient times applying modern yardsticks. This approach depicts a confusing picture of women in Ancient India. It also ignores the time frames of the textual references and the actual events. Hence, it is essential to build a sequence from ancient to modern times for this chapter.

The evolution of social attitudes across the world becomes clearer with the help of the timeline given below:

The Timeline Relating to the Position of Women*
Some famous women


Hymns worshipping *Devis*
Period of *Mahabharata* Draupadi, Gandhari, Kunti
Yashodhra
Plato, Aristotle inferior status of women **
4500 B.C.
3800 B.C.
3200 B.C.
6th century B.C.
4th century B.C.
Period of *Ramayana* Gargi, Sita, Mandodari, Sulochana
Gaps in the records
Women in government and military services in India

*This chronology is based on Vedic and post-Vedic literature. During the last six decades, archeological finds and the discoveries of the ruins of ancient cities have given us new information about the connections between Vedic and Harappan civilizations. Satellite imaging of Sarasvati River and the carbon dating of the relics have enabled geologists to give us better estimates of the time frame of Vedic and post-Vedic literature.

** Reference to the position of women in Greek literature is not available prior to the writings of Plato and Aristotle.[1]

Readers may note that the worship of mother goddess preceded worship of any other symbol.[2]

As shown in the timeline, Rome is not yet on the horizon. For the entire continent of Africa, we have one name of a woman ruler, Cleopatra the Queen of Egypt 50 B.C.[3]

Textual Position of Women – Vedic and Post-Vedic Literature

Dual Aspect of the Divine

In Ancient India, Divinity (the divine Being and the *Devas*) itself was seen as dual[4] and respect for women was taken as a matter of fact. As already discussed in the chapter on Hinduism, the essence of every natural phenomenon (*Deva*)[5] is power (*Shakti*). The artistic expression of this *Shakti* is given a female form. The oldest *Devis* — Girija (referenced in *Ramayana*), Durga, (referenced in *Mahabharata*) and Lakshmi (force that nourishes by bestowing wealth and prosperity) were worshipped all through the ages.[6]

Centuries later, artists in Southern India expressed this idea in the bronze figure of *Ardhnarishwara*[7] . Half of the face and body of this figure is feminine.

What is Shakti?

Shakti by definition is independent and it leads to *Moksha.* Hindus believe that while men defend righteous social order, make money and help in the fulfillment of needs and desires, it is the women who have the power to lead the family (and by extension) the society towards liberation. In the Vedic ceremony of marriage, this point is emphasized.

Frank Morales aptly points out, "Within the concept of *Shakti*, we find a profound and spiritually oriented philosophy of women's liberation." He adds,

> "One world-view that offers us a fresh and radically different approach to the issue of power and the feminine is found in the philosophy and culture of *Sanatana Dharma* (otherwise known as "Hinduism")—and specifically in the Vedic concept of *Shakti.* Within the metaphysical[8] framework of *Shakti*, we discover the concept of the feminine as being nothing less than the very manifestation of power itself. Power itself, by very definition, is intrinsically feminine according to the *Dharmic* world-view."

Referring to *Devi Bhagvad Purana*, a post-Vedic text, Morales says, "One would be hard pressed to find a sacred work anywhere in the entirety of Hindu literature in which there is not at least some mention of a feminine power."[9] In Sanskrit language, *Shakti* is assigned the feminine verb. Another example of this is that for Hindus, the earth is not considered a bunch of rocks and pools of water, a lifeless object, to be owned or exploited. The earth is revered as mother, *Devi* or *Bhudevi.*[10]

Art follows imagination but its core essence is always in some practice, some fact or a notion. For Hindu art, all three existed.

Position of Women in the Family

In ancient India, women were held in great respect.

To clarify this point, some quotes and verses from ancient texts are given below:

"That man alone can become a scholar who has had the advantage of three great teachers, viz., mother, father and the *Acharya* (meaning Guru)."[11]

It may be noted that the word 'mother' precedes 'father'. Whenever husband's and wife's names are mentioned, wife's name comes first; for example, there are names such as *Radheshyam* (for Radha and Krishna), *Sitaram* (for Sita and Rama) etc.

Both mother and father in every household are respected as *Devas*, because they are the givers of life. In *Ramayana*, Vasishtha says that a father's status is hundred times higher than that of a Guru and that of the mother a thousand times higher than that of a father.

This Vedic statement sums it all, '*Devas* live where women are worshipped.'

Marriage and Women's Right to Choose

Vedic texts do not mention child marriage. Manu discussed this point in his *Manu Smriti*. According to Manu, a man's body is fully developed by the time he is twenty five. A woman's body is not developed till she is sixteen. His advice is that a girl should wait at least three years after the onset of puberty and then parents should *let her choose a husband who is her equal.*[12]

This brings out the most important tradition of Hindu marriage in ancient times. This tradition is called *Swayamvara*[13]. Hindu society has recognized that women have tremendous freedom in making decisions regarding her marital affairs; for example; there are references to the fact that eligible bachelors were invited by the parents, and the bride to be would choose one from among them by garlanding him. Symbolically the tradition lives on.

Starting with the post-Vedic period, even today a bride shows her approval of the groom by going first while exchanging the garlands.[14] Various ceremonies and steps in the Vedic marriage ceremony, (which have not changed for the recorded history of 5,000 years), is proof of a very respectable position of women in the family. As they go around the sacred fire, in the first three rounds, men lead, for earning wealth, protecting the family and *Dharma* (society). In the last one round the bride leads for

ensuring liberation and happiness. Though a man is instrumental in procuring wealth, women ensure stability, happiness and peace. During the Vedic marriage ceremony, the groom promises to be like the Pole star (for its fixed position, symbolically he is promising to be steadfast) while the bride promises to be like Arundhati, Acharya Vashishtha's wife (she is promising flexibility).

In all Vedic ceremonies, the wife participates by sitting next to her husband, no *Yajna* ceremony can be done without the wife sitting on the left hand side. When a bridegroom brings his bride to his house, before entering the house he tells her:

"Remain awake
As intelligent and alert woman
Enjoying full life of a hundred years.
Enter the house as iis ideal mistress,
May the Creator bestow on thee
Long life."[15]

Wedding ceremonies performed in accordance with Vedic religion bind the bride and the bridegroom in spiritual ties of love and liberty, equality and integrity, purity and piety. They become one soul living in two bodies. The following mantra in which a bridegroom addresses his bride at the time of wedding, categorically illustrates the inseparable union between the two:

'I am what thou art
Thou art what I am.
I am the hymn,
And thou art the verse;
I am the heaven,
And thou art the earth;
May we live together
To produce progeny.'[16]

Commentaries and Later Codification

Vedas, Brahmanas, *Upanisadas*, *Ramayana*, *Mahabharata* and the *Bhagvad Gita* are the most important and the earliest texts of Hindus. All other sources (like *Puranas*, *Dharma Sastras*, *Sutras*, etc.) are later commentaries, explanatory notes or stories written by individuals. Manu's codification came several millennia later. More recently, some of the commentators (especially in the last three centuries) expressed different views on this subject.

Famous Women of Ancient India

- Gargi was a philosopher who had discourses with the famous philosopher Yajnavalkya, and both of them were in the court of Janak, the King of Mithila
- Sita was Rama's wife and daughter of King Janak
- Mandodari was the wife of Ravana
- Maitreyee was the wife of sage Yajnavalkya and a philosopher in her own right
- Lopamudra was the wife of Sage Agastya
- Shakuntala[17] was the Queen of Hastinapur and wife of King Dushyanta
- Kunti was the Queen of Hastinapur and mother of the Pandavas
- Draupadi was the wife of Pandavas

Position of Women and Manu

The following few quotes are from *Manu Smriti*:[18]

Manu says, "Let women be always worshipped (meaning respected) by their fathers and brothers, by their husbands and the brothers of their husbands."[19]

"Where women are honored, families are blessed by *Devas* and where they are not honored, all their acts are fruitless."[20] Manu also mentions in the next verse that if women are unhappy, the whole family is destroyed and where they are happy, the family continually prospers.

Manu Smriti was written after the birth of Buddha. It is not mentioned in the *Ramayana*, the *Mahabharata* or any of the ancient texts. Many scholars confuse Manu (author of the *Smriti*) with Svayambhu Manu who preceded the writings of *Ramayana*, *Mahabharata* and *Bhagvad Gita* because his name comes up in all of these texts. Vedic scholars believe that this Manu was the first man (Adi Manu) and the word Adam came from that name. He was not the author of the *Smriti* and the Manu who codified many of the traditions and practices came at a much later date. *So the notion that Hindu* Dharma *came into being, Manu wrote the* Smriti *and the caste system along with the subordinate position of women were laid out by him for the followers of* Vedic Dharma *is inaccurate at best and misleading at worst.* Many writers (especially European writers) randomly use quotes from *Manu Smriti*. Such quotes when presented out of context confuse readers. Besides Manu, there were other philosophers and seers before him who wrote a great deal about the position of women. Chanakya in the fourth century B.C. laid down elaborate laws for the protection of women's rights to property.

Respect for women is reflected in the design of the Sanskrit language itself. For example, the names of *Dharmic* books, the most cultured and noble attitudes are assigned the female gender in Sanskrit language. Intelligence, memory, strength, forgiveness, courtesy, modesty, humility, compassion, mercy, charity, awareness and numerous other virtues and qualities are treated in Sanskrit grammar as feminine.

Using this quote from the Vedas, 'Gods live where women are worshipped', Frank Morales has aptly said,

> "This fact is even reflected in the sacred Sanskrit language, in which, for every masculine title of authority, there have always been feminine equivalents. For as long as there have been *yogis*, there have been *yoginis* (women *yogis*). There have been both *sadhus* (ascetics), and *sadhvis* (women *sadhus*); both *swamis* (masters), and *swaminis* (women *swamis*); *panditas* (scholars) and *panditaas* (women scholars); *bhikshus* (mendicants) and *bhikshunis* (women mendicants); *rishis* (seers), as well as *rishikas* (women seers)."[21]

Sundaresan Subramanian, a noted scholar, analyzes Sanskrit words such as *Grha* (house), and *Grhasta* (householder). Sanskrit language clearly makes distinction between these two words. Sanskrit word for a house is *Grha*. It is interesting to find other constructs from this root word, which indicate who resides in the house and who owns and manages the house. One who resides in a house is called a *Grhasta*. Young people who returned from the educational institutions to practice *Dharma* as householders were called *Grhastas*. However, the wife of a householder was called *Grhini*. This word denotes that the house belongs to her and she manages it.

Similar differences exist in other languages as well. For example in Tamil language, the husband is referred to as *Illarattan* and the wife is called *Illal*. The two different words indicate that the husband performs religious ceremonies while the wife owns the house.[22]

Subramaniam says, "From times immemorial, the terms, *dharma-patni*, *saha-dharma-chaarini*[23] have been used to describe one's wife, thus highlighting her connection with *Dharma*. Here lies the proof of the high esteem in which Hindu *sastras* hold women. A man can perform sacrifices only with his wife."[24]

"From the *Puranas*, we learn that *Dharmic* and chaste women won powers far greater than those earned even by the sages. According to the great Tamil saint poet Thiruvalluvar, if such a woman says, 'Let there be rain', there will be rain."

"Men and women have definite roles to play as envisaged by nature but none is inferior.

By no stretch of the imagination, are women intended to be inferior to men. On the contrary, Hinduism accords women a higher status over men."[25]

Sundaresan Subramanian concludes, "There is no disparity in status between men and women, nor are women discriminated against in Hinduism … . There is absolutely no intention of lowering the status of women as evident from the discussion…" of the above issues: Subramanian recommends that one needs to properly understand and interpret scriptures in Sanskrit, Tamil and other Indian languages to be able to arrive at truthful conclusions about the status of women in ancient India.

Social Effects of Textual Position

To understand the social effects of the guidelines provided by the Vedic and other texts, we need to discuss three important issues. The study of these issues will help us understand how women were treated in ancient times.

a. Property rights of daughters
b. Rights of women in relation to marriage, as also issues such as child marriage
c. Widow remarriage and the issues of *Sati*

Vedas on the Property Rights of Daughters

At the time of the marriage, girls were (still are) given part of the parental assets. These assets remained the possessions of married women. The term used for this was '*Stridhan*' (a woman's wealth or possessions).

"The third chapter of the *Rig Veda* is considered the oldest part of the *Rig Veda*. *Richa*[26] 3. 31.1 commands that a sonless father accepts the son of his daughter as his own son. That is, all properties of a sonless father shall be inherited by the son of his daughter. *Richa* 3- 31.2 commands that if parents have both a son and a daughter, the son performs holy acts of *pindadaan* (after the death of the father) and the daughter has to be enriched with gifts (*rindhan*, that is, to be made wealthy). *Richa* 2. 17.7 also attests share of a daughter in the property of her father."[27] This actually means wealth sharing between sons and daughters after the death of their father.

Chanakya mentions about the rights of women in his *Artha Sastra*. He enumerates various property laws relating to women, even the rights of

second wife.[28] He also enumerates the rights of women working in houses of entertainment.[29]

Issue of Remarriage

In *Taittiriya Brahmana*, the phrase '*dvirvivaaham kritavatii strii*' is used[30] This phrase can mean the following:

1. A widow who is remarried.
2. A female who has two "concurrent" husbands.
3. A divorced or an abandoned woman who remarries.

If the meaning is taken as case 1 or 3, we have a Vedic sanction for remarriage of widows/abandoned/divorced females.[31]

For the second choice of meaning, there is no doubt because there are references to a woman having more than one husband, though the practice was very rare. Polyandry was practiced in some tribes.

Equal Education for Women

In Vedic times women and men were equal as far as education and religion were concerned. Women participated in the public *yajna* ceremonies alongside men. One text mentions a female *Rishi*, Visvara. Some Vedic hymns, are attributed to women composers such as Apala, the daughter of Atri and Ghosa, the daughter of Kaksivant.

There is literary evidence indicating that in early Vedic times women also received the sacred thread and could study the Vedas. The *Harita Smriti* mentions a class of women called *brahmavadinis* who remained unmarried and spent their lives studying Vedas. Panini's[32] distinction between *Acharya* (a lady teacher) and *acaryani* (a teacher's wife), and *upadhyaya* (a woman preceptor) and *upadhyayani* (a preceptor's wife) indicates that women at that time could not only be students but also teachers of sacred lore.[33] He mentions the names of several noteworthy women scholars of the past such as Kathi, Kalapi, and Bahvici. The *Upanisadas* refer to several women philosophers, who had public discourses with their male colleagues such as Vacaknavi (also known as Gargi), who challenged Yajnavalkya.

Women's Participation in Public Life

The *Rig Veda* refers to women engaged in warfare. One queen Bispala is mentioned. *Ramayana* mentions that Kaikayee accompanied her husband Dasharatha in one of the battles. Later, Megasthenese (fourth century B.C.) mentions heavily armed women guards protecting Chandragupta's palace.[34]

During the Maurya period, women were employed in various positions in administration and in the military.

Issues of Child marriage

Manu is very specific about this point, "The best time for marriage for a girl is from the 16 to 24 years of her age." From the point of view of medicine, Sushruta and later another authority on medicine, Vaghabhata state that in no case should a girl be married before the age of 16 and definitely no girl younger than this age should be allowed to have children.

Profiling Europe Down the Ages and America in the Last 300 Years

In the ancient world (west of India) did equality of women exist anywhere as a concept or as a practice? In the following few paragraphs, this issue will be discussed to unveil the global picture.

Greek society lauded for democracy, had slavery, and men were divided in three classes. Rome had two classes—Patricians and Plebeians. Women were not mentioned.

All through the ages, except for some queens and princesses, the entire history of Europe has no mention of any famous woman in any field. Joan of Arc (15th century for her patriotic leadership of her nation) and Florence Nightingale (19th century for her service to the wounded) are two exceptions. Prior to that, none of the great civilizations — Egyptian, Mesopotamian, Sumerian, Roman etc. have any mention of women's status or their role in society.

Plato and Aristotle

Plato's two books *Republic* and *Utopia* revolve around ideals, many of which have been found impractical. In his Utopian state, beside the king (and princes) endowed with power of philosophy, political greatness and wisdom, there are three other classes — Guardians (at the top as law makers), common people and soldiers. Once selected randomly from the lot, the sons of the guardians usually succeeded according to the hereditary system. His guardians (aristocracy) would rule unchecked. His definition of justice was to make sure that people pay their debts. His idea of liberty was rigid censorship in subjects selected for education and his idea of social equality was even more impractical but fascinating. He wanted all children to be taken away from the parents and raised at some mysterious place and trained as soldiers. This way, no one would complain of unfair

treatment. Children born to people outside prescribed age groups[35] would be aborted or killed.

He recommended slavery of inferior men (all were inferior other than the Greek) and all women. Conquerors had the right to make people slaves. With these glorified Hellenistic traditions, Europe could not maintain its sanity for several centuries.

Even 18th century philosophers and champions of liberty such as Locke suggested rights of citizens with the *exclusion of women* and the poor from the rights of citizenship.[36]

European Society and Women

From the earliest recorded history to the 18th century, Europe and Middle Eastern societies emphasized the subjugation of women. Scriptures and the institutions mandated complete control of husbands over their wives.

Students may remember the Witches' hunt—Salem trial of witches in American colonies during mid 17th to 18th century. American democracy for that time and age could have drafted more equitable and feminist constitution but it failed to do so.

> According to Koenraad Elst, "Whereas *gender inequality was universal in the premodern world* (and perhaps a bit sharper and artificially exacerbated in advanced civilizations than in primitive societies), there are no facts known to me that make the status of Hindu women markedly worse than that of Chinese or Hellenistic or Muslim women." Dr. Koenraad Elst further adds, "Both the rules of the Buddhist orders and the Buddha's own occasional sayings about women suggest that gender equality was the last thing on his mind or on that of his influential followers.
>
> Nowadays all these ridiculous anachronistic claims are made for Buddhism, such as that it pursued a social revolution of egalitarianism, though no trace of this is found in the career of Buddhism in China, Japan etc., and not in India either."[37]

Women's own self perception of their position, in Indian society is affected by several factors. Out of these, religious tradition has not been the most important factor during the past three centuries. Therefore, it is necessary to understand what women think about their position according to the Vedic texts. Secondly, readers should draw references from the Buddhist and the contemporary Hindu literature.

Rigidity in Social Attitudes in India

It is important to discuss why social attitudes became more rigid. In the last 1,500 years, different social sections often had to take rigid positions for the protection of women. The extent of the influence of tradition was not the same in these time periods, nor were the occupational/ educational facilities the same. Women's freedom was curbed, especially during the turbulent years of invasions and influx from 11th century onwards.

Readers may remember that during different time periods, social conditions affecting the position of women were not the same.

What Happens When we Ignore this Difference?

Depiction of a messed up picture[38] has damaged the gender relations in the society as well as in the family. It has also obscured the constitutional equality given to women and the application of uniform civil code to all regardless of gender. India today has very successful businesswomen, in small and big businesses. The number of women in civil services, provincial and central, is enormous.

Crimes Against Women

The Issue of Sati

Students might have come across headings such as, '*Hindu tradition of* Sati-*forcible burning of widows.*'

The italicized assumption and adjectives need clarification with reference to historic facts and current practices regarding *sati.*

In the *Mahabharata,* there is an incidence of Pandu's wife Madri committing *Sati* because she held herself responsible for her husband's death. Prior to that, in *Ramayana*, there is a reference to a daughter-in-law of Ravana (Sulochana) who died on the pyre of her husband because she found her life useless without him. Both cases were personal choices and not dictated by society. In both cases, they acted ignoring the advice of their relatives and friends.

Many soldiers died in the battle between Rama and Ravana, no other incident of *sati* is mentioned. In the *Ramayana*, after the death of King Dasharatha, his wives were never asked to step into his pyre. Rather, they lived in the family with full honor and Rama always bowed his head before his widowed mothers with full respect. In the *Mahabharata*, Kunti, mother

of the Pandavas did not commit *sati*. Thus, there is no command in the *Ramayana* or in the *Gita* to commit *sati*.

After the *Mahabharata* war, no widow committed *sati* though millions of soldiers died in the war. In the Kalinga war, thousands of soldiers died on both sides. *Sati* was not committed by any widow. In Dwarka, there was a civil war among the Yadus, Krishna foreseeing this, asked Arjuna to take women and children to Hastinapur and other safe places where the ruler would look after their well-being. He did not ask Arjuna to force them on the burning pyre. Prior to the *Mahabharata* War, Krishna painted the worst case scenario of the war in the court of Dhritrashtra, he specifically pointed out among other things that wars leave women without husbands and children without fathers and this encourages immorality. He did not mention the possibility of committing *sati* on the part of the women!

In fact, there is no literary or historical account that mentions allowing or forcing such choices. It is possible that the verses of Vedas have been either misspelled, misinterpreted or both. For example, the actual word used is *yónim ágre*, (seated in front with other ladies) but the translators spelled it as *yomiagne*.[39]

Looking at the translated verses of *Rig Veda*, it is clear that widow burning is not mentioned. The following quotes may bring the reader to the same conclusion.

"I would like to draw the attention of readers to *richa* X 40.8 of the *Rig Veda* which praises Ashwin gods for protecting a widow. It shows gods were praised for protecting widows. How could gods go to protect widows, and, thus act against the *Rig Veda* if it had actually commanded burning of widows? Another *richa*, X. 40.2,[40] may come as a complete surprise to many Hindus. H.H. Wilson translates it: "Where are you, Ashwins, by night? Where are you by day? Where do you sojourn? Where do you dwell? Who brings you into his presence in the same place (of sacrifice) as on her couch a widow (brings) her husband's brother, as a woman (brings) her husband (to her)." Thus, the *Rig Veda* not only sanctioned survival of a widow but also her living with her *devar* (younger brother of the husband) with full dignity and honor in the family. So it expressly sanctioned widow marriage."[41]

"Verse X 18.3 commands a Hindu widow to separate from the dead and verse X 10.8 commands her to return alive to her children and her home."[42]

In later literature also, the mandate to allow the widow to go home and live is clear. Here is a quote from a later *Sutra*, "Rise up woman, thou

liest by the side of the lifeless, come to the world of the living, away from the husband, and become the wife of him who holds thy hands and is willing to marry thee."[43] It seems that except for one case mentioned in the *Ramayana* and one in the *Mahabharata*, there is no *scriptural mandate or reference to actual practice of* Sati *in any of the Vedic and post-Vedic texts. Chanakya's five books including* Artha Sastra *or the accounts of Greek visitors to India, even Alberuni's* Indica *has no mention of* Sati. *Jaina and Buddhist* Jatakas *do not mention it either.*

Also, there is no literary proof of *Sati* being a lower caste issue. Since the number of cases of *Sati* were so few that it did not merit statistical analysis.

The Muslim Period and the Practice of *Jauhar*

During massacres at the hands of Muslim invaders from 10th century onwards, most of the soldiers and citizens were put to death; women and children were taken as slaves. While women were kept in the Muslim harems as concubines, most of the children were sold in slavery.

To escape this fate, mass *Jauhar* or self-immolation on a pyre was performed by the Rajput women here and there. Here is a quote from an eminent social historian, Koenraad Elst

> "For its sheer magnitude in scope and death toll, coupled with its occasional (though not continuous) intention to exterminate entire Hindu communities, the Islamic campaign against Hinduism, which was never fully called off since the first naval invasion in 636 CE, is a real candidate for the description of genocide."[44]
>
> "Ferishtha (a Muslim writer) lists several occasions when the Bahmani Sultans in Central India (1347-1528) killed a hundred thousand Hindus, which they set as a minimum goal whenever they felt like punishing the Hindus and they were only a third rank provincial dynasty."
>
> "Apart from actual killing, millions of Hindus disappeared by way of enslavement. After every conquest by a Muslim invader, slave markets in Baghdad and Samarkand were flooded with Hindus."[45]

Many Muslim historians have given account of such massacres.

BBC, in an article mentions that: "*Sati* is believed to have originated some 700 years ago among the ruling class or Rajputs in India. The Rajput women burnt themselves after their men were defeated in battles to avoid being taken by the victors.[46] The custom was outlawed by India's British rulers in 1829 following demands by Indian reformers."

Dev Mukherji, a noted scholar on ancient customs summarizes the issue of *Sati* thus:[47]

"Evidence from the three cases of *Sati* up to the 7th century A.D. clearly supports the view that:

(a) *Sati* was infrequent, the rare exception, rather than general norm.

(b) *Sati* was entirely voluntary.

(c) It gained prominence as a result of horrific attacks by Afghans and Turks."

During the British period, increase in the number of such cases probably was because of the prevailing sociopolitical conditions. All through global history, suicide attempts out of desperation have always been a social phenomenon. Ending life by self-immolation is just one part of that scenario.

Summary

For more than three millennia before the Common Era, women had enjoyed many freedoms and a respectable place in the Indian society. The ancient texts such as the Vedas, the *Ramayana*, the *Mahabharata* and the *Grihsutras* clearly give us a good idea about the position of women in Ancient India. The Epics and the later books such as *Artha Sastra*, describe the actual practices and the role of women in the family and in the society.

Manu and eminent *Vaidyas* (doctors) such as Sushruta forbade the marriage of a girl below the age of 16. A woman was allowed to choose her own husband in a ceremony known as *Swayamvara*. In the royal families and among the nobility, this practice continued up to the beginning of the second millennia A.D.

Though there are references to the practice known as *Sati*, the recorded history of Ancient India shows only two incidents of *Sati* performed voluntarily by widows. There is neither a textual mandate nor a social requirement of forcing a widow to die on the pyre of the husband.

Abuse of women and domestic violence has been a part of relationships all over the world. The global context given in this chapter gives a comparative picture of the position of women and social attitudes towards them in various countries.

For explaining the position of women in India, often modern day anthropological categories and sociological yardsticks are used, thus fusing the past and weaving into it the criteria that did not exist in the ancient

times. The current legal and constitutional rights of women are also briefly discussed in order to link the past to the present in the global context.

Questions About the Issue of *Sati*

1. Can society be held accountable for the sins of inaction, when rulers ignore these issues? Students may draw parallels from global history on various human rights issues.
2. With the help of statistics, students may discuss gender issues in the context of inquisition in Catholic France, Spain and Italy and witch burning in Protestant Germany.
3. Over the centuries, people have been murdering relatives for property. In the light of current social conditions, it might continue in the coming centuries too. Greed is a part of human nature. If greedy people incite a widow to commit suicide by self-immolation or any other means, can we link it to a religious tradition?
4. On the basis of the above chapter, do you consider *Sati* a Hindu custom or a social evil of historical significance?
5. When social support system collapses, the law and order breaks down, the rulers plunder not just wealth but women as well, what are the choices for women to save their honor? Are these choices valid?
6. During the period between 700 A.D. and 1700 A.D., most of the people from the Brahmin class were randomly killed and the *Kshatriya* class died in various battles and skirmishes, can *Sati* be attributed to Brahmin oppression?

General Questions

1. After reading the chapter, is it correct to generalize that 'Oppression of women is representative of Hinduism'?
2. Students may consult various other sources to research if there was any case of that occurred when a Hindu kingdom attacked another Hindu kingdom?
3. Statistically how significant was (is) prevalence of *Sati* or *Jauhar*?
4. Recalling American history, what was the constitutional position of women in the 17th, 18th and 19th centuries?
5. If theories and the texts of ancient Europe do not mention the rights of women, much less equality of their status, can we infer that there were social practices giving them an exalted status or respect?

6. Based on the study of the timeline given in the beginning of the chapter, students may do a class project showing the contribution of women in various fields in the countries of Western hemisphere during the period between 1,000 B.C. and 1,400 A.D. for a comparative study of the freedoms and the rights of women in different European cultures.
7. Students may refer to the paragraph about the opinions of Plato and Aristotle on the subjects of rights, the class may debate on the following issue: Where are the rights of women? For that matter, where are the rights of men?

Enrichment Activity

1. For the class projects, students may be divided into groups. Each group may be assigned different regions of the world to explain textual position of women and realities of the social situations. They may use time frame of the past five millennia.
2. Students may get information from the UNO to find out about crimes against women and how the governments are dealing with these crimes.
3. Students may pick one country from different regions and compare the current position of women.

The Following Section Deals with Oppression of Women and Other Crimes Against Women

Soon after independence, the Hindu Civil code was passed. Originally meant to be applicable uniformly to all sections of Indian society, it is now applicable to Hindus (Sikhs, Jains, Buddhists included) alone. It is not applicable to women in Islam whose rights are limited by the Shariat laws.[48] Besides this Code, there is a uniform Civil Code applicable to all except the Muslims.

Hindu Law in Modern India

Some broad aspects of Hindu Code Bill

THE HINDU MARRIAGE ACT, 1955

As Amended by [Act No. 2 of 1978] An Act to amend and codify the law relating to marriage among Hindus.

(1) Short title and extent – Sec.1

This Act may be called the Hindu Marriage Act, 1955.

It extends to whole of India except the state of Jammu and Kashmir, and applies also to Hindus who are residing abroad.

(2) Application of Act – Sec.2

This Act applies to those who are Hindus, Buddhist, Jains or Sikhs by religion, but not to Muslim, Christian, Parsi or Jew by religion. Their respective Acts govern them.

This law prohibits bigamy and marriage between immediate relatives. It also sets minimum age of 18 for marriage for a girl.

Uniform civil code guarantees equal rights to all citizens of India. Women have the same rights and equal opportunities in workplace and in society. For over 17 years, the office of prime minister was held by a woman. Women in India have equal pay for the same job, and equal opportunities for advancement.

India is one of those very few countries where female employees get paid maternity leave for 12 weeks. In many advanced countries, pregnant women either face loss of the job or leave without pay.

The random cases of deaths of married women are not always related to dowry. Often it is due to the struggle for power in the joint family. Greed can cause violence against anyone in the society and women are no exception. In other societies, the murder of wives for insurance can be compared with incidents of dowry death.

It is essential to compare and contrast the position of women and crimes against them in other modern nations and societies.

Though women are battered and abused almost everywhere, the abuse remains unreported hence beyond the arm of the justice system.

The news report under the following heading appeared in 2004, some excerpts are given below:

'Women, a battered section of society undisclosed and undiscussed by the press' Modern day democracy'[49]

Paris, March – "The Amnesty International Secretary-General. Irene Khan, releasing a report on Saturday dealing with violence against women, described the phenomenon as a 'cancer' eating away at the core of every society.

According to the report, one in every three women suffers violence in her lifetime. The statistics in Europe are as appalling as anywhere else. In France, six women die each month at the hands of men who profess to love them. In Spain, some 100 women are killed each year by abusive spouses or boyfriends with over 30,000 complaints of severe physical violence, while in Switzerland, one of the wealthiest countries in Europe where "direct democracy" rules supreme, the number of women who suffer

physical and psychological abuse tops 20 per cent. In Britain, one woman is killed by a partner every three days, one woman in four experiences domestic violence and attacks on partners account for a quarter of all violent crime. Statistics for death and mutilation and injury are not there."

When we convert these numbers in percentages, abuse in India comes out far less. Three or four generations of families living together under one roof is still common in India. This system ensures safety of the family. American and other European societies find it difficult to accept a four generational model of family much less practice it. The idea of a *Nuclear family and its right to privacy is fundamental to the western way of living. In the absence of social support, cases of abusive relationships need government intervention.*

Other Crimes such as Child Brides

Hindu code bill has set 18 years as the minimum age for a bride.

As late as August 21, 2006, child marriages cases have been are reported in some communities of India. Students may remember that the Hindu Code Bill guarantees rights of Hindu women only. It does not apply to Muslims, Jews, Christians and Zoroastrians.

Cases of child brides often appear in the press, here is one headline:

"13-year-old-girl marries her 75-year-old man

Tuesday August 22 2006 15:01 IST

PATNA: Despite opposition from her family, a 13-year-old girl in a Bihar village married her 75-year-old. Asir Ansari, father and grandfather to many, married Raveena Begum in Purnea district, 450 km from here." The mother of the girl alleged that, "The village society helped her and Ansari marry."

However child marriage is prevalent today in various parts of the globe. The topic can be studied from the following links:

http://www.stolenchildhood.net/entry/child-marriage-violation-of-childs-body-mind/http://www.chicagotribune.com/news/printedition/chi-0412130239dec13,1,2724868.story

How Women are Treated in the United States

The following facts are reported and compiled by the majority staff of the Senate Judiciary Committee (July 31, 1990). Some of the facts from the report are given below:

"The most serious crimes against women are rising at a significantly faster rate than total crimes: during the past 10 years…"

Every 18 seconds, a woman is beaten; 3-4 million women are battered each year. Since 1974, the rate of assaults against young women (20-24) has jumped almost 50%. For young men, it has decreased. Three out of four women will be victims of at least one violent crime during their lifetimes. Each year, more than one million women seek medical assistance for injuries caused by battering. The crime rate against women in the United States is significantly higher than in other countries. Last year, the number of women abused by their husbands was greater than the number of women who got married.

Nearly 50% of abusive husbands batter their wives when they are pregnant, making them four times more likely to bear infants of low birth weight. If every woman victimized by domestic violence last year were to join hands in a line, the string of people would span from New York to Los Angeles and back again. More than half of all homeless women are on the street because they are fleeing domestic violence.

Since 1974, the rate of assaults against young women (20-24) has jumped 48%. For men of the same age group, it has decreased 12%. *Half the cases of women killed in this country are victims of domestic violence."*[50]

Questions

1. What are the crimes committed against women in the modern world? Is discussion of *Sati* relevant (sporadic incidents of such desperation and suicide) in the context of prevalence of far worse crimes against women?
2. Is *Stridhan* a form of dowry? What is the purpose of this practice?
3. If there is one case of dowry death or because of insurance fraud, it shows failure of the judicial system and cracks in the system of law and order. Suggest three ways India can avoid dowry deaths and three ways the USA can reduce crime against wives/partners?
4. Why did position of women in India deteriorate in the second millennia?
5. Should there be separate social laws for different ethnicities in a nation state?
6. Should USA and other western countries allow its various ethnicities to have separate social laws?

Critical Thinking Activity

Vedas, *Ramayana* and *Gita* are the three important holy texts of Hindus. From these sources we get a good view of the position and status of women. Even today, Hindu wedding ceremony follows the Vedic traditions that show immense respect for women. All other sources (like Brahmanas, *Upanisadas*, *Puranas*, *Dharma Sastras*, *Sutras*, etc.) are later commentaries, explanatory notes or stories written by individuals. Manu's codification and other commentaries came centuries later.

On the basis of the preceding paragraph, readers may answer the following questions:

1. If there is a contradiction between the Vedic texts and the later commentaries, which should be taken as an authentic source for getting information about the position of women in Ancient India?
2. Commentaries written on the Constitution of India or that of USA cannot override the articles of the Constitution. Can the commentaries or explanations on Vedas by later day scholars individuals supersede verses and hymns of Vedas, or the *Gita*?

Endnotes

[1] For more information, read, *A History of Western Philosophy* by Bertrand Russell

[2] Check section 2, chapter 10 showing artifacts of mother goddess about 5,000 years old.

[3] Approximate date arrived at with reference to Roman records about Julius Caesar and his time.

[4] Hindus believe that all creation combines male and female aspects hence, the Creator also has both aspects.

[5] Students are advised to refer to the chapter on Hinduism to review these terms.

[6] Students are advised to refer to the chapters on Hinduism and the Age of Epics in section 2.

[7] Another name for Shiva

[8] Metaphysical – relating to metaphysics, philosophy that deals with the reality of nature, abstract thinking about the cause of our being.

[9] Source: *Prologue: Shakti Ascending* by Dr. Frank G. Morales, published, July, 2005

[10] *Bhudevi* means mother Earth.

[11] *Shathpatha Brahmana*

[12] *Manu Smriti* chapter 9, verse 90. In those days, the onset of puberty among girls was at least three years later than it is today.

[13] Literal meaning of the word *Swayamvara*- a girl's right to choose her groom

[14] Hindu brides and grooms exchange garlands in place of rings.

[15] *Atharva Veda* 14.2.71

[16] Ibid.

[17] Students are advised to look up for information about these women and their greatness in section 2, chapter 14

[18] Source: *Truth of Light* by Swami Dayananda Sarasvati. He was a famous philosopher and translator of the Vedas during the 18th century. He was the founder of Arya Samaj, a reform movement to revive Vedic knowledge. These quotes are translation of verses from *Manu Smriti*.

[19] Manu, chapter 3, verse 55 – source: *Light of Truth* by Swami Dayananda Sarasvati

[20] Manu chapter 3, verse 56

[21] Frank Morales

[22] Source: S. Subramaniam

[23] *Dharma-patni* means- wife in following *Dharma* and co follower of *Dharma*.

[24] Source: S. Subramaniam

[25] Ibid.

[26] *Richa* means *Mandala* or volume

[27] Source: an article written by O.P. Gupta who was Indian ambassador in Finland

[28] Kautilya's *Artha Sastra*, relevant chapter- 3, section 2 and 3

[29] ibid. chapter 2, section 27

[30] TB 3.4.4

[31] Source: an article written by O.P. Gupta

[32] Panini was a grammarian and a teacher in Takshashila University. To read more about him, check section 3, chapter 20

[33] As already mentioned, language reflects the social attitudes and practices.

[34] Source: article written by Kalavai Venkat, posted at this link- http://tinyurl.com/aqybj

[35] Boys between, 25-45 and women between 20 and 40 years of age

[36] Source: *A History of Western Philosophy* by Bertrand Russell

[37] Koenraad Elst- post on Indian Civilization group on 11.12.05. Dr. Elst is a noted scholar of history of sociopolitical issues such as Caste System, *Sati* etc. His book, *Saffron and Swastika* discusses historical aspects of several current issues.

[38] Mixing different time frames of events can give a messed up picture.

[39] *Mandala* 10, hymn 18, verse 7.

[40] Ibid; quote from *Mandala* 10, hymn 40, verse 2

[41] Source: Translations of relevant portions of Vedic texts by Vedic Scholar, O.P. Gupta.

[42] *Mandala* 2, hymn 17, verse 7; *Mandala* 3, 31.2; *Mandala* 10, 18.3, 18.8, 40.2 and 40.8. Quoted by O.P. Gupta

[43] *Ashwalayana Griha Sutra* IV 2-4

[44] "Was There an Islamic Genocide of Hindus?" This article by Koenraad Elst appeared in the book- *Contemporary Views on Indian Civilization*, pp. 333-44, WAVES Publications

[45] ibid. p. 341

[46] http://news.bbc.co.uk/1/hi/world/south_asia/2178102.stm
Also check this link: http://www.kamat.com/kalranga/hindu/sati.htm

[47] Source: Email message posted on Hinducivilization@yahoogroups.com

[48] *Shariat* refers to common law of the Muslims according to the Holy Book *Qur'an*

[49] Source: article by Vaiju Naravane, the article was printed in *The Hindu* (a daily newspaper) dated Tuesday, March 9, 2004

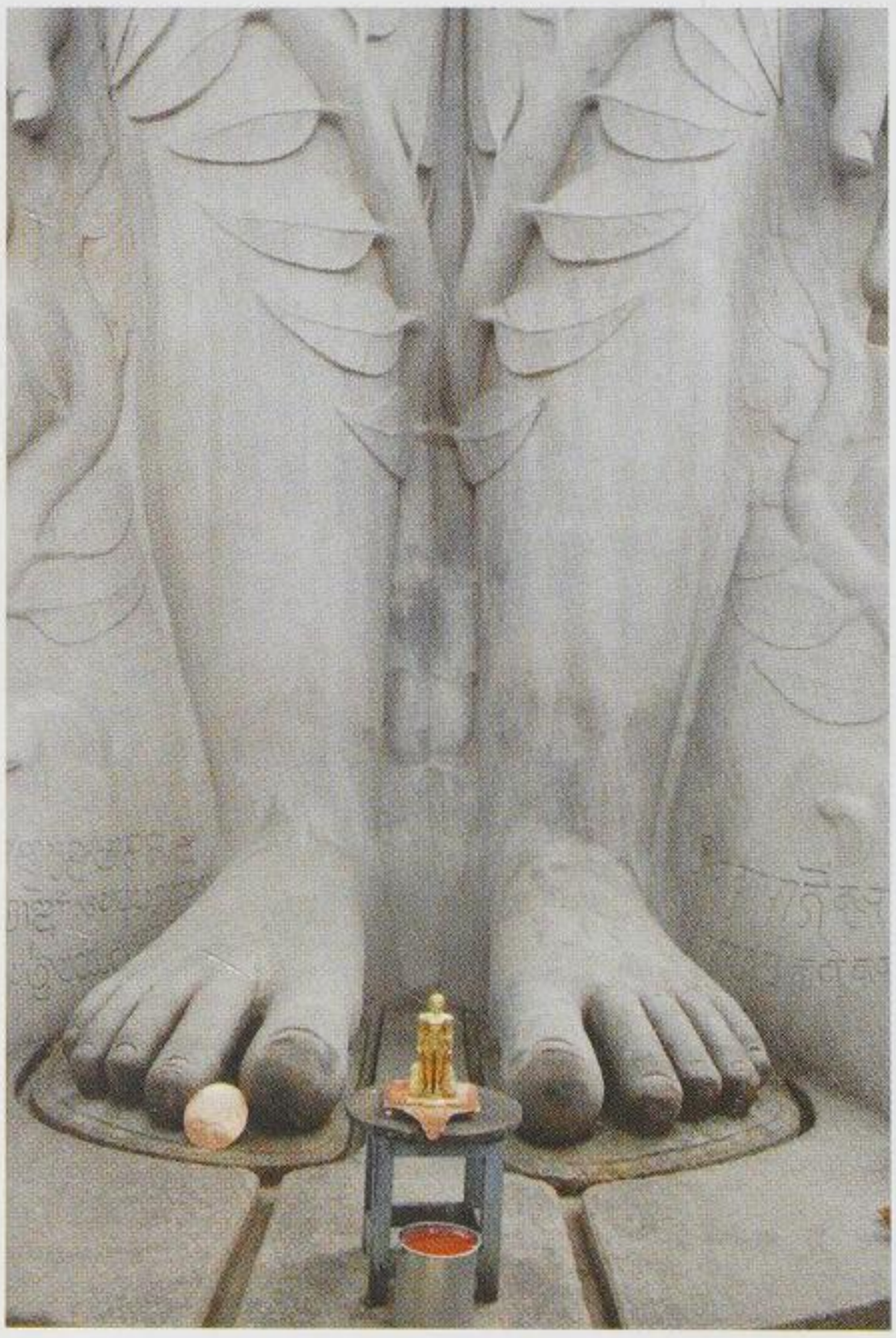
[50] Compiled by the majority staff of the Senate Judiciary Committee (July 31, 1990)
Reported by Jai Maharaj- Available at the link: http://tinyurl.com/a5ljc

The statue of the great poet Tiruvalluvar

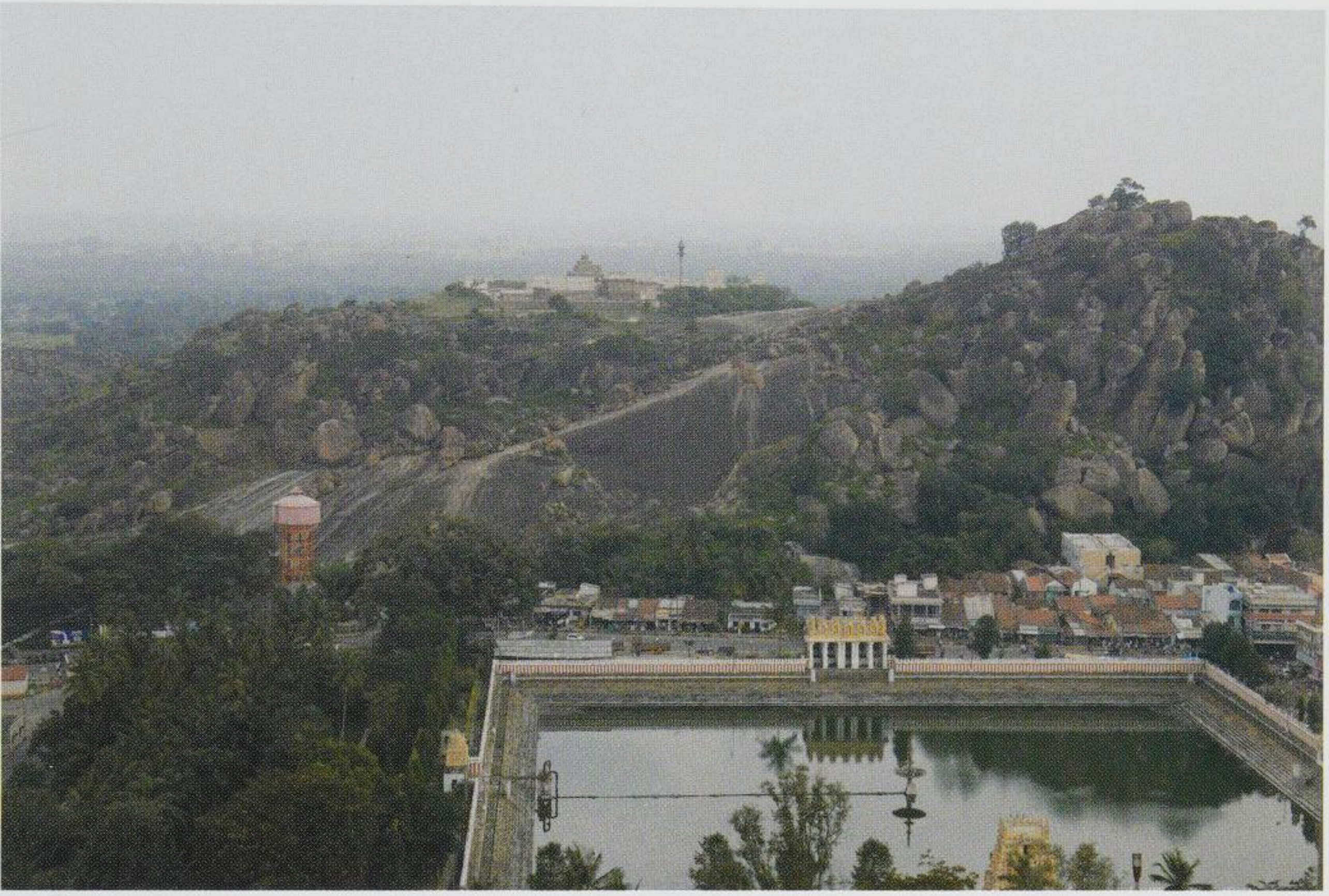
The ruins of a temple at Talakadu

Pillar gateway in the temple

Statue of Mahavira



Feet of Tirthankara Bahubali on the lotus base

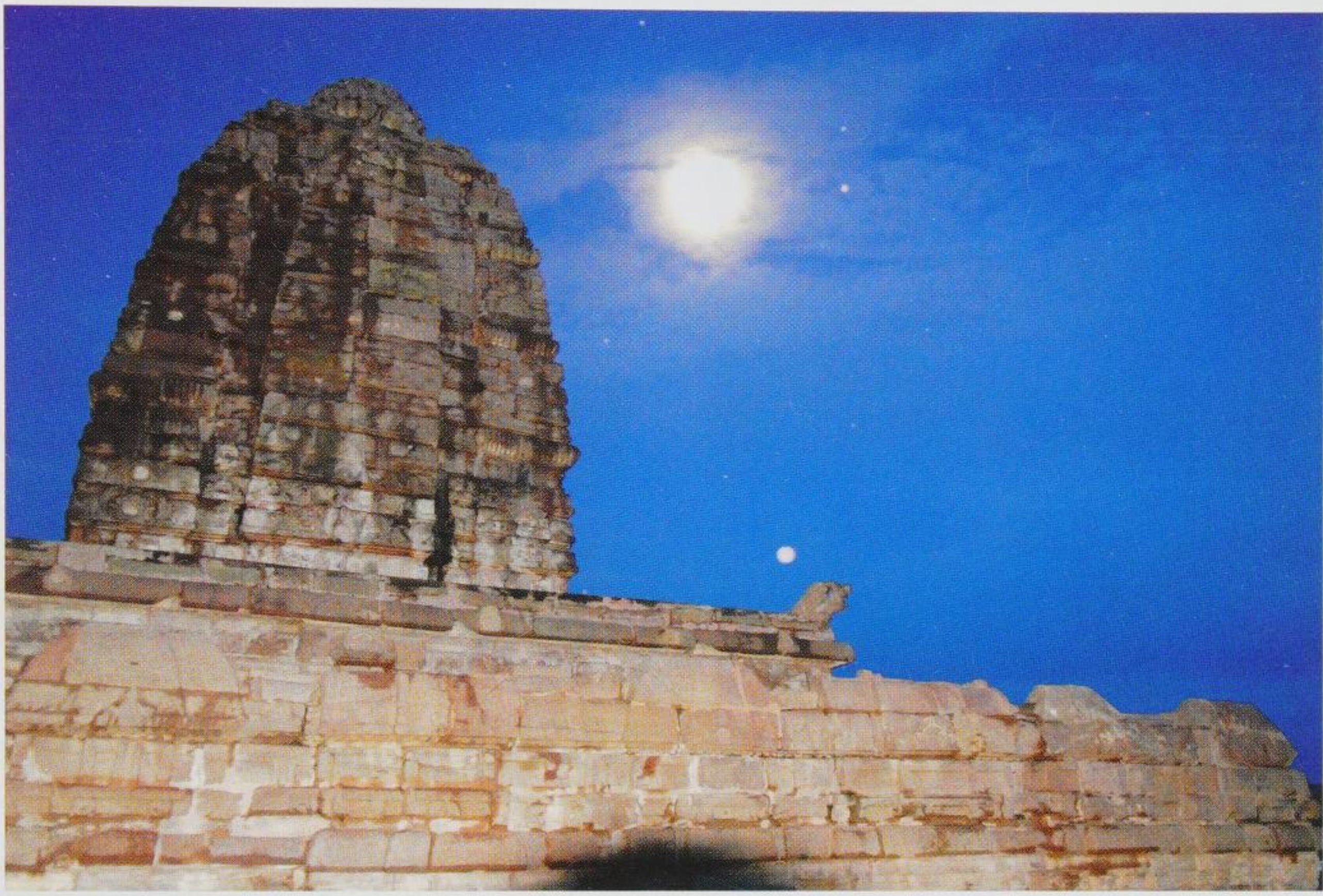


Water tank at the foot of the Shravanabelagola Temple

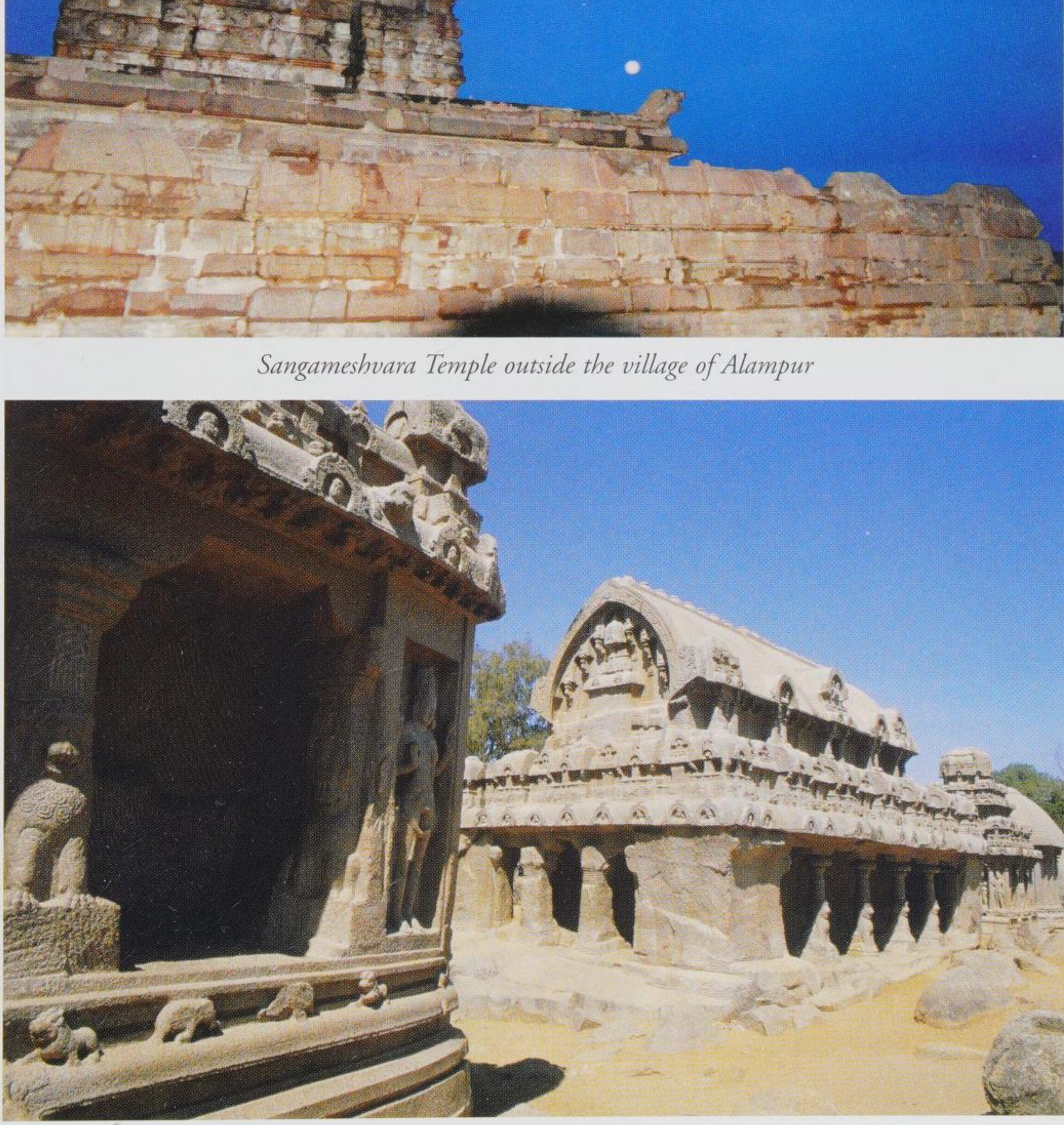
Shravanabelagola Temple Complex

Bal Brahma Temple

Padma Brahma Temple

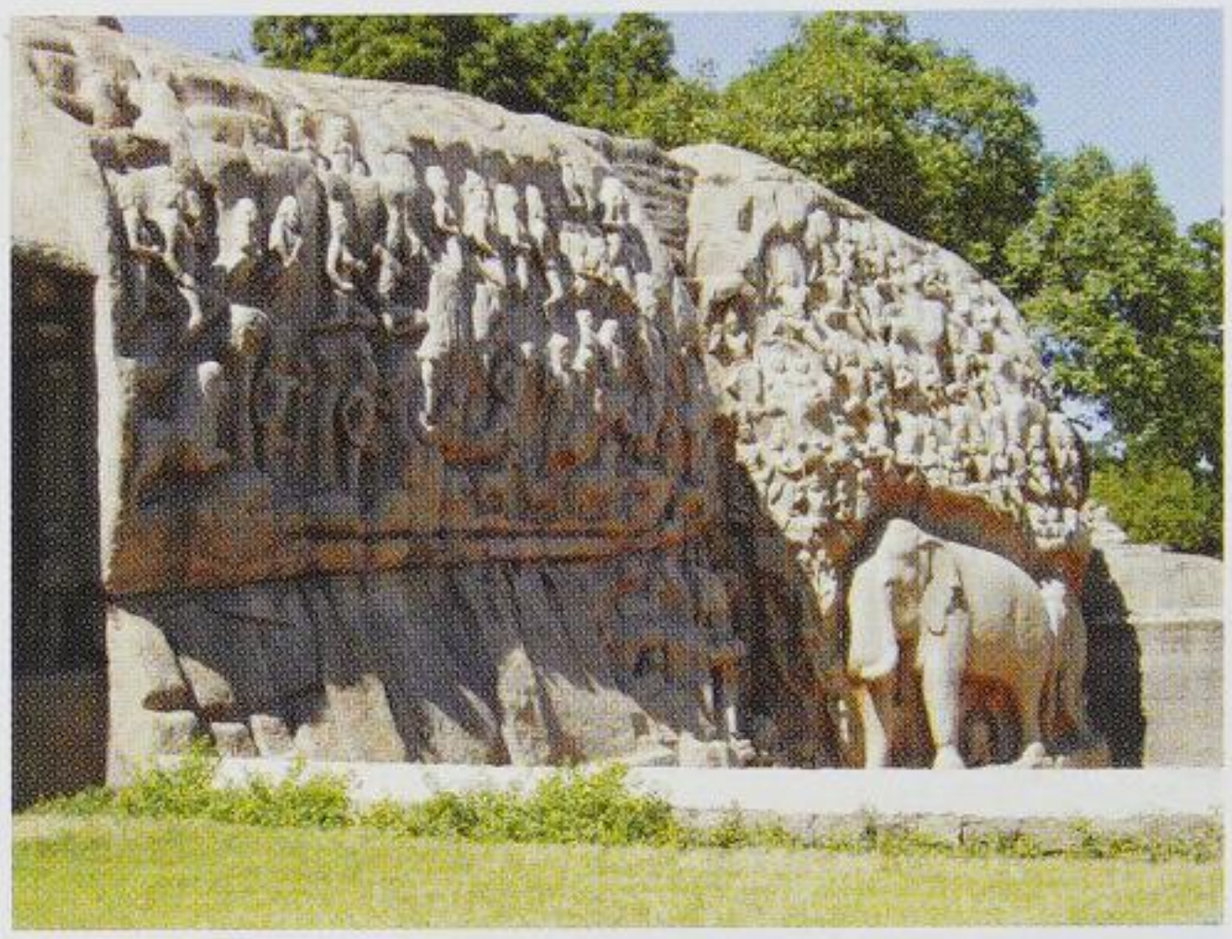


Sangameshvara Temple outside the village of Alampur



The five stone chariots of the Pandavas

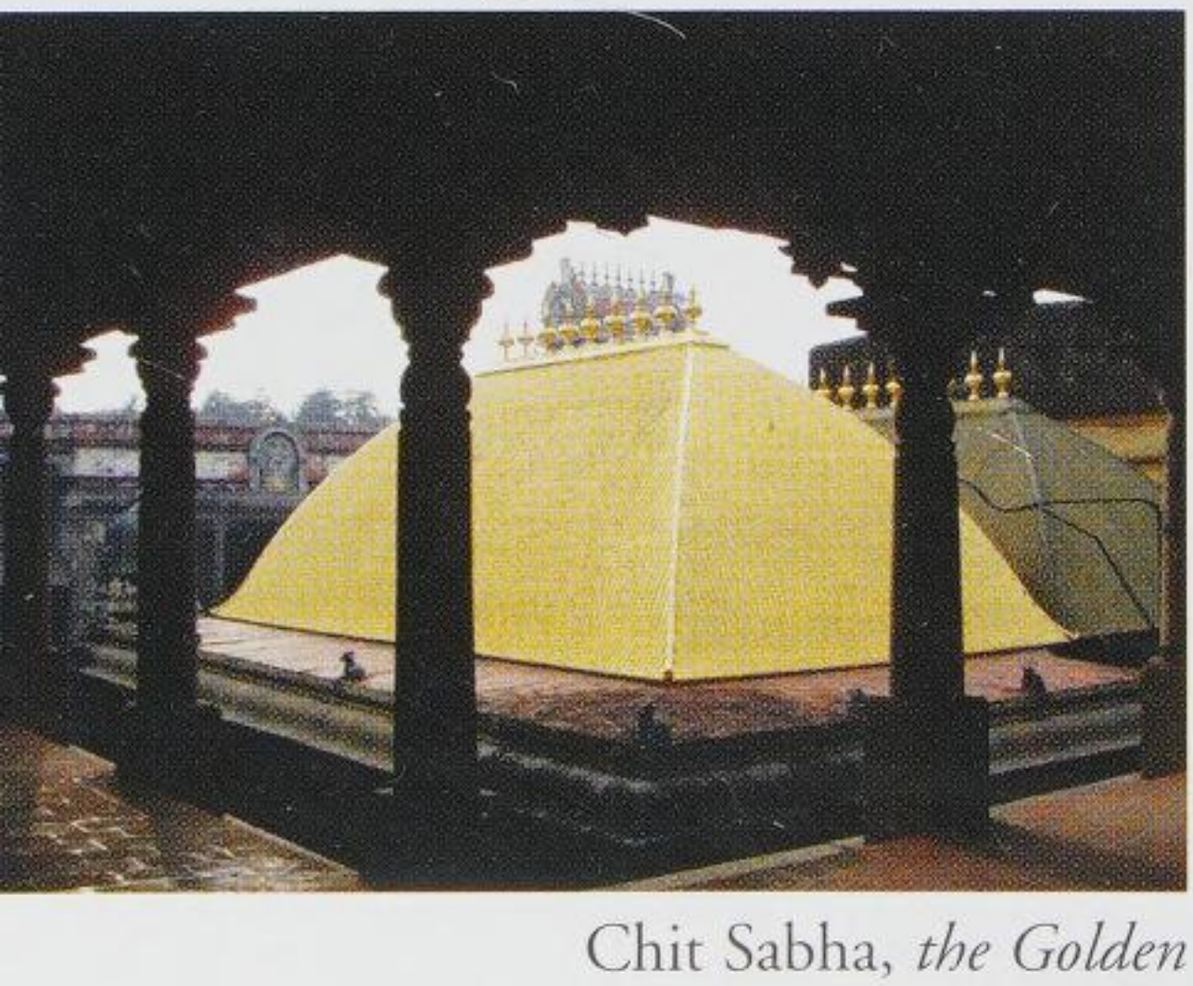
The main temple built by
Narasimha Varman I, dedicated to Vishnu

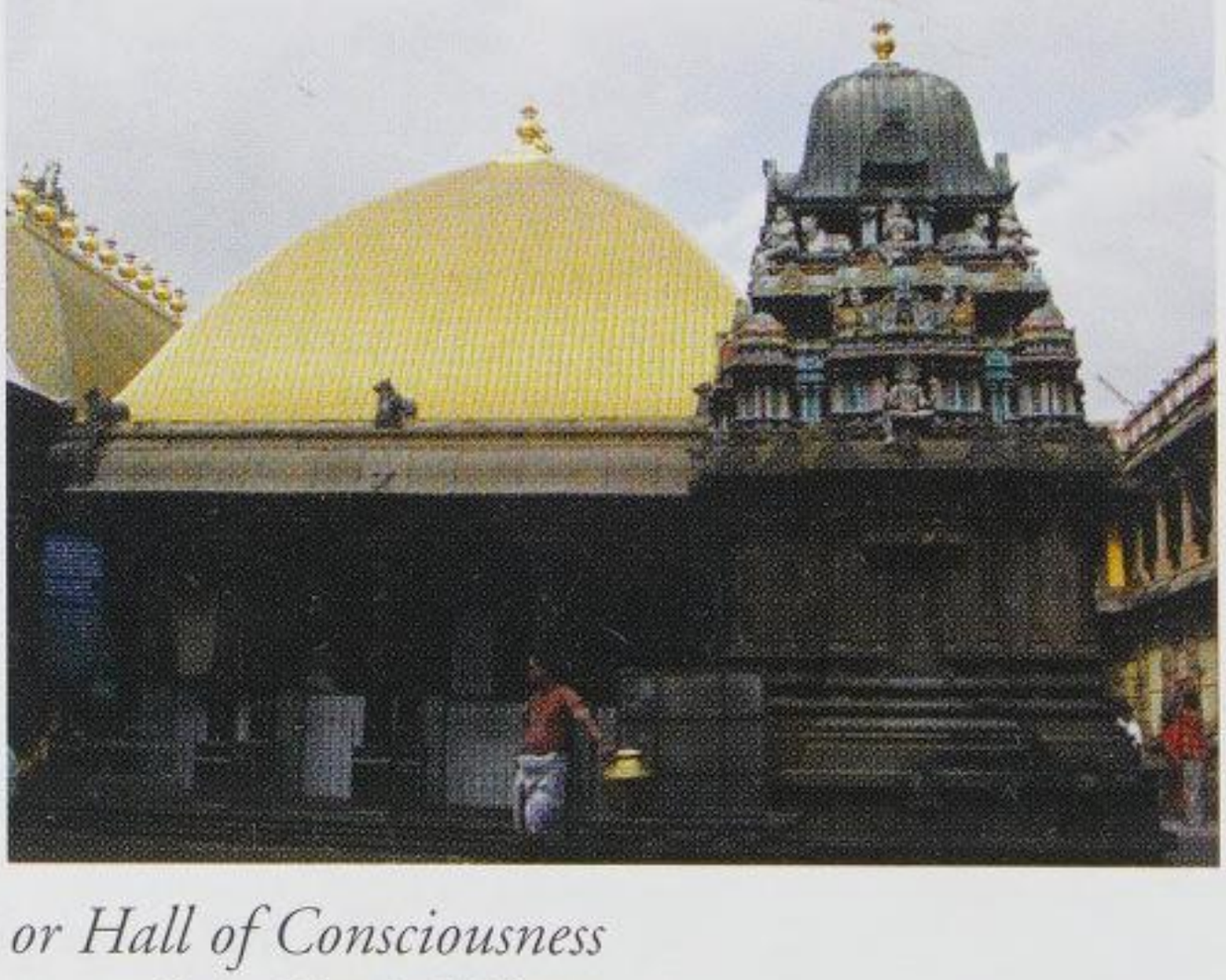


Sculpted relief at Mamallapuram depicting
Bhagiratha's penance

Kailashanatha Temple
at Kanchipuram

Panel in Kailashanatha Temple

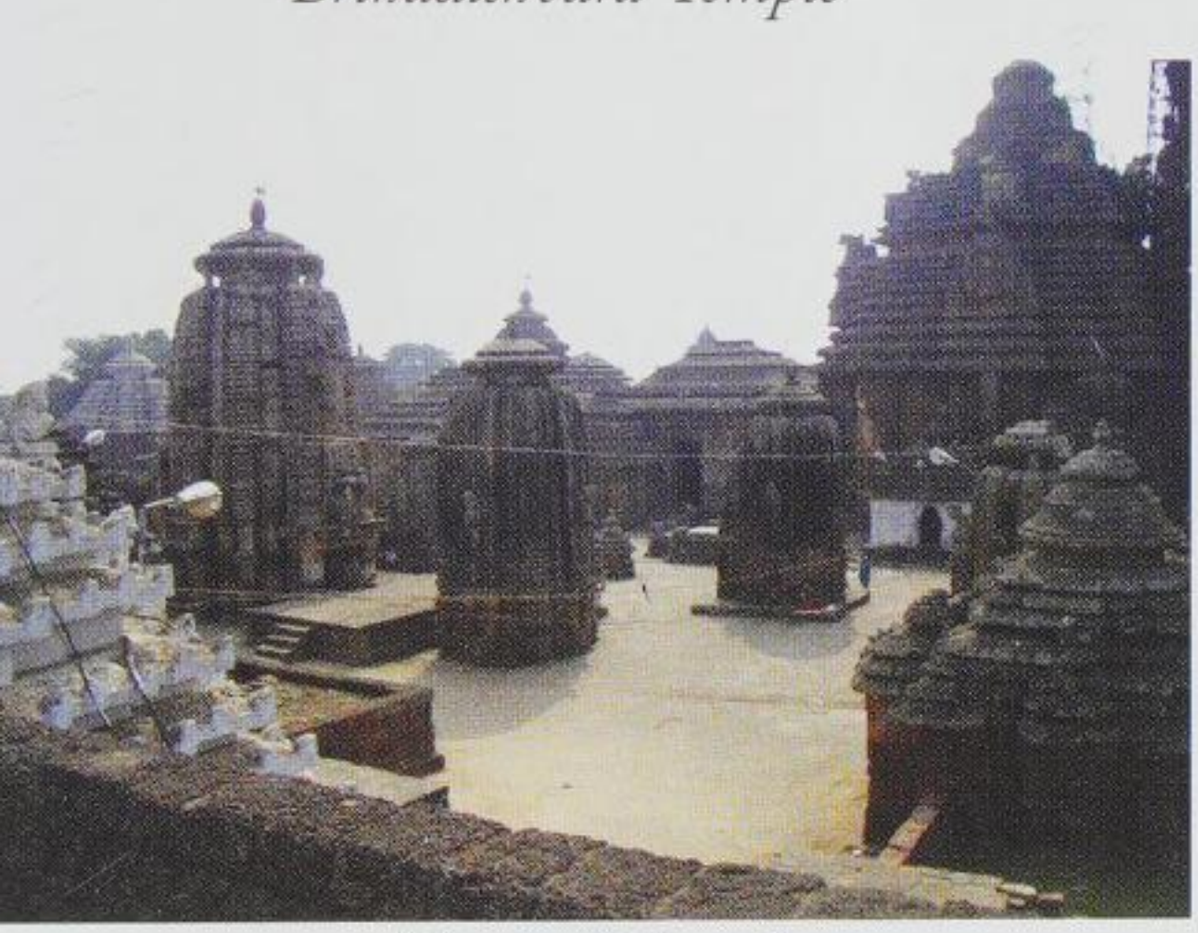




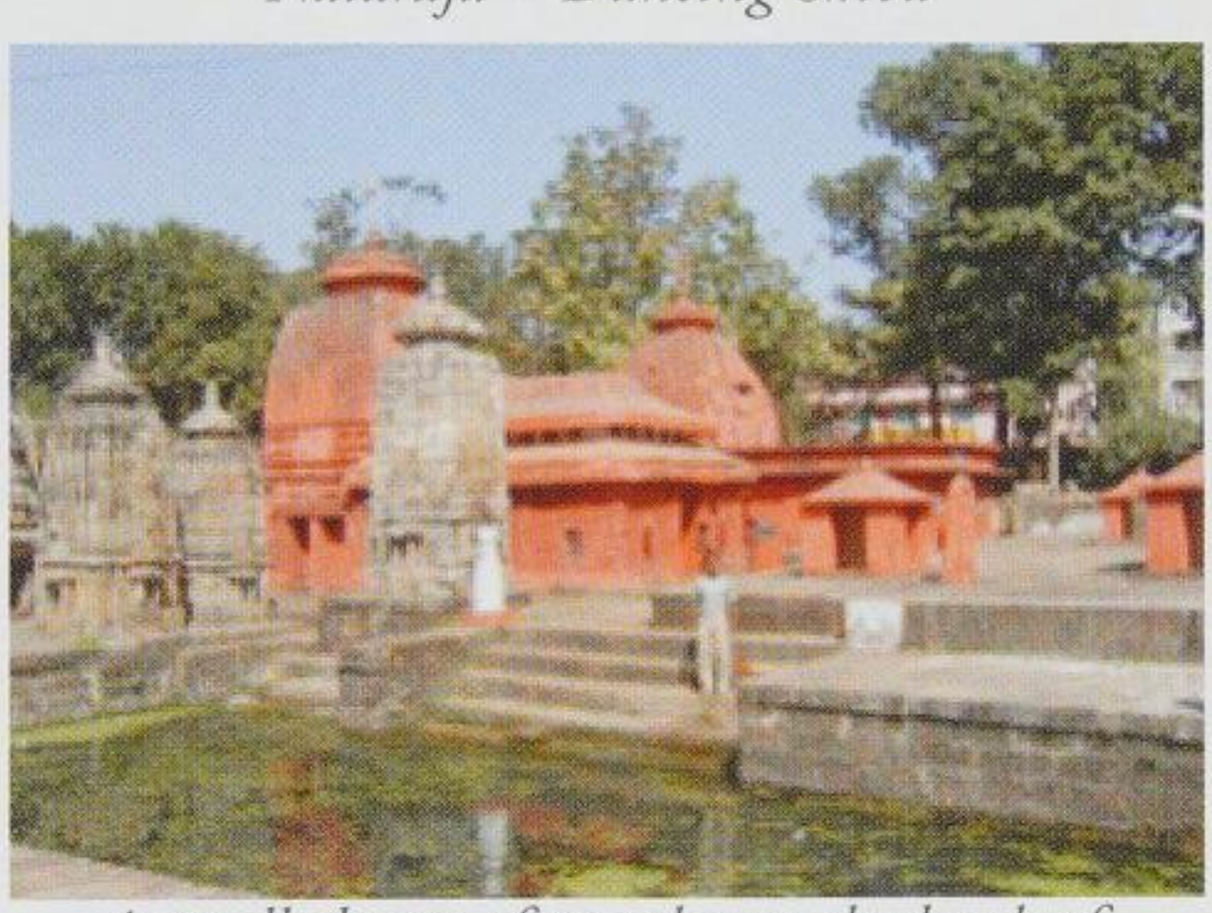
Chit Sabha, *the Golden Hall or Hall of Consciousness*
The above two pictures courtesy: Raja Deekshithar

Brihadishvara Temple

Nataraja – Dancing Shiva



Lingaraj Temple

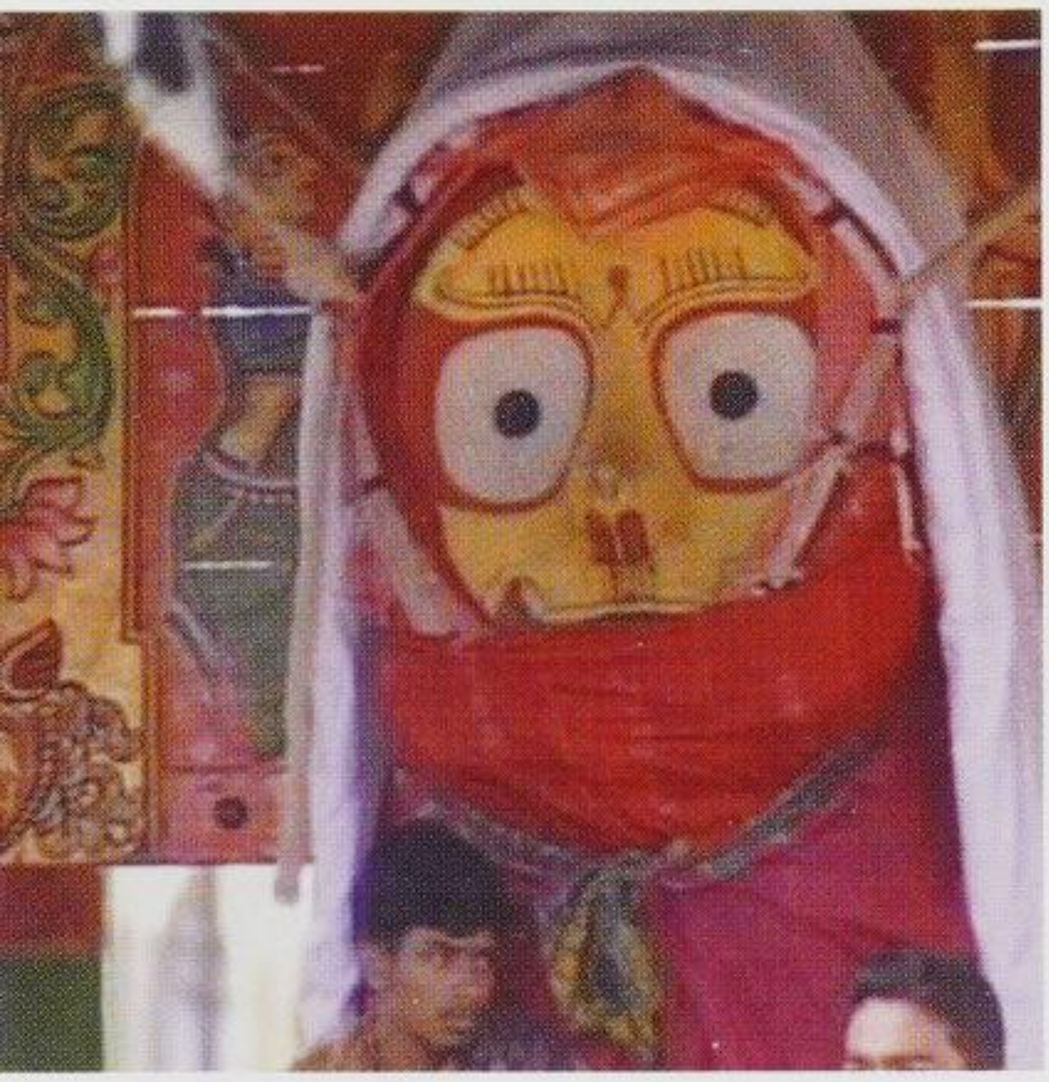


A small cluster of temples on the bank of the Bindu Sarovara Tank, Bhubaneswar

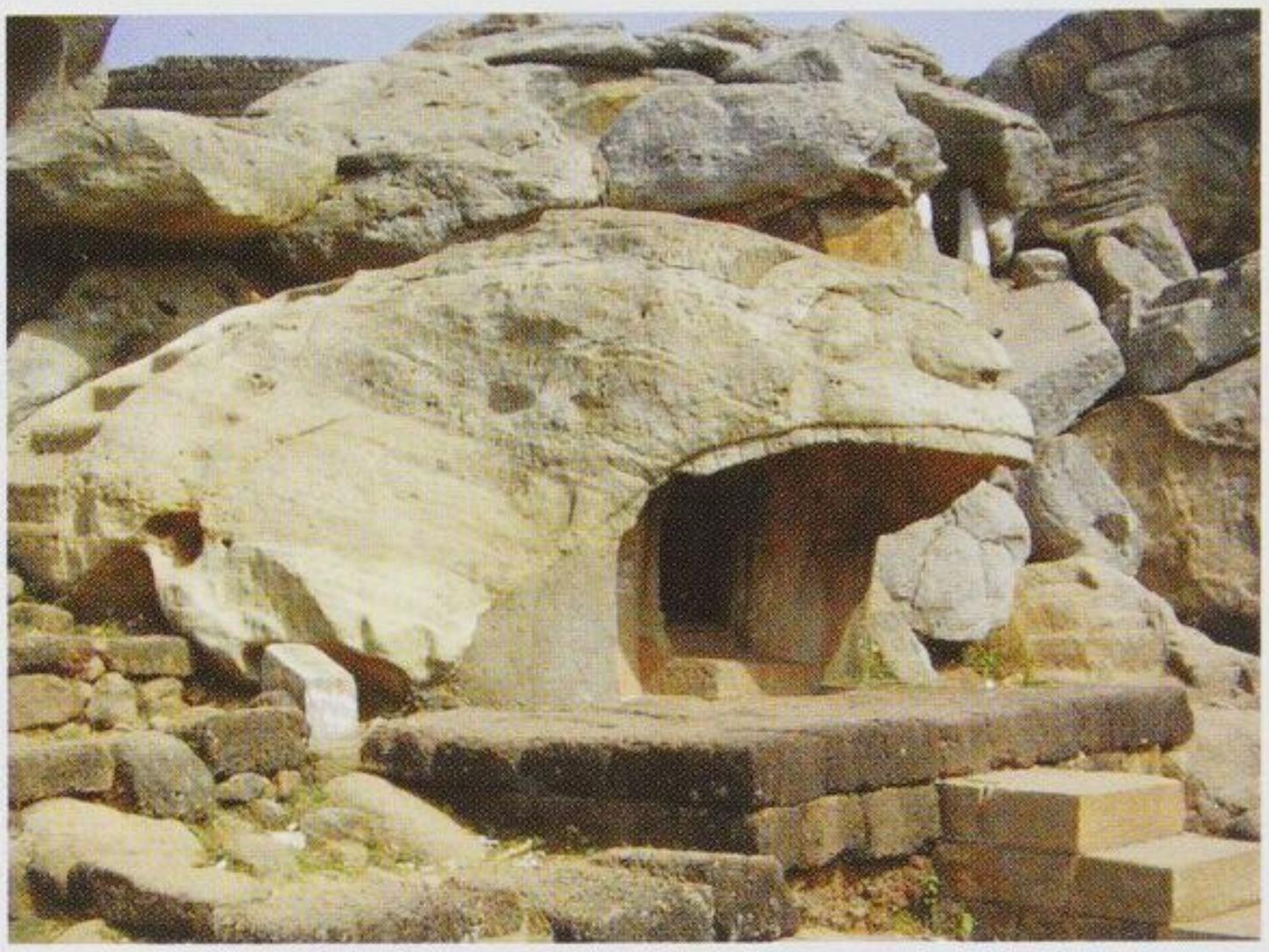
Rathayatra

Ratha – *Pagoda, commonly known as a float*

The four above pictures courtesy: Parma Karuna Devi



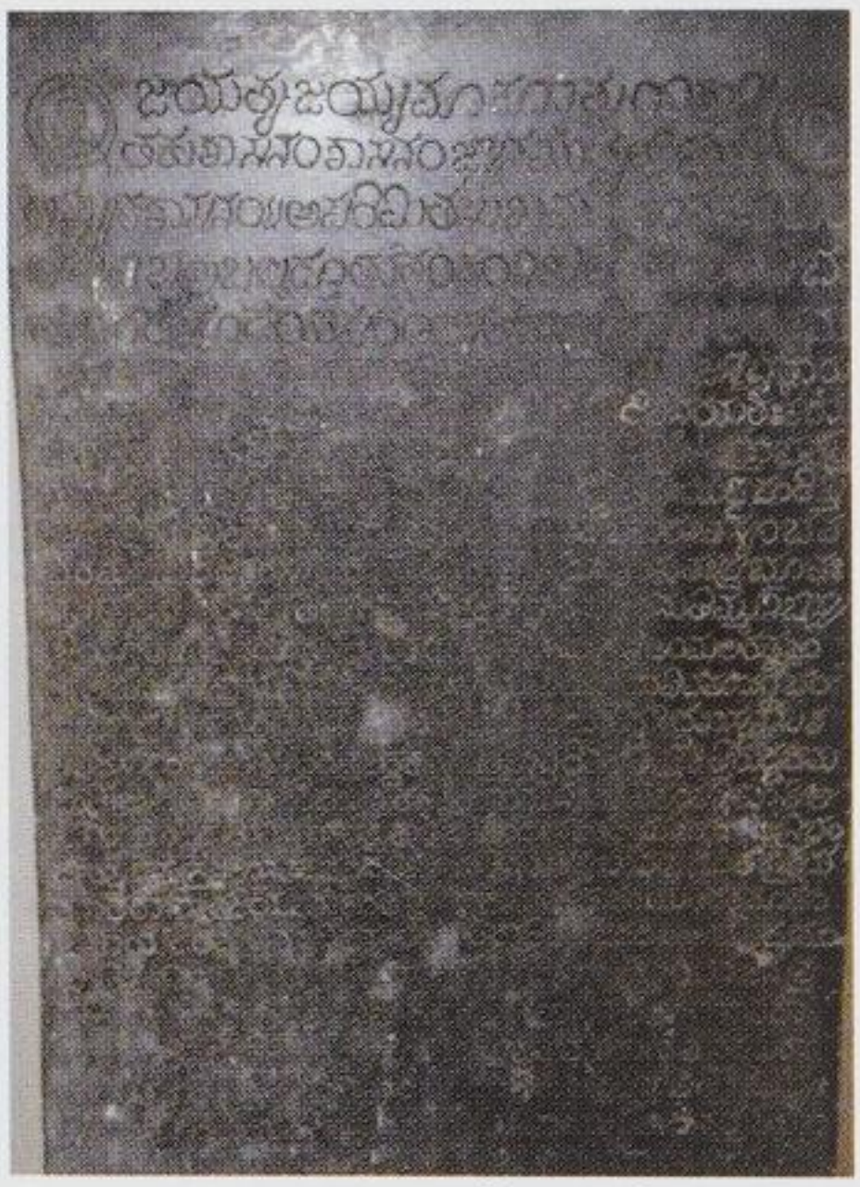
Rathayatra, *Puri*



Bagh Cave Temple of Udaigiri

The above two and *pattachitra* picture courtesy: Parma Karuna Devi

Pattachitra painting from Raghurajpur, Odisha



Inscription from the Shravanabelagola Temple

Silk cocoons on a frame

Frescoes in Brihadishvara Temple

SECTION FOUR

History of Southern India

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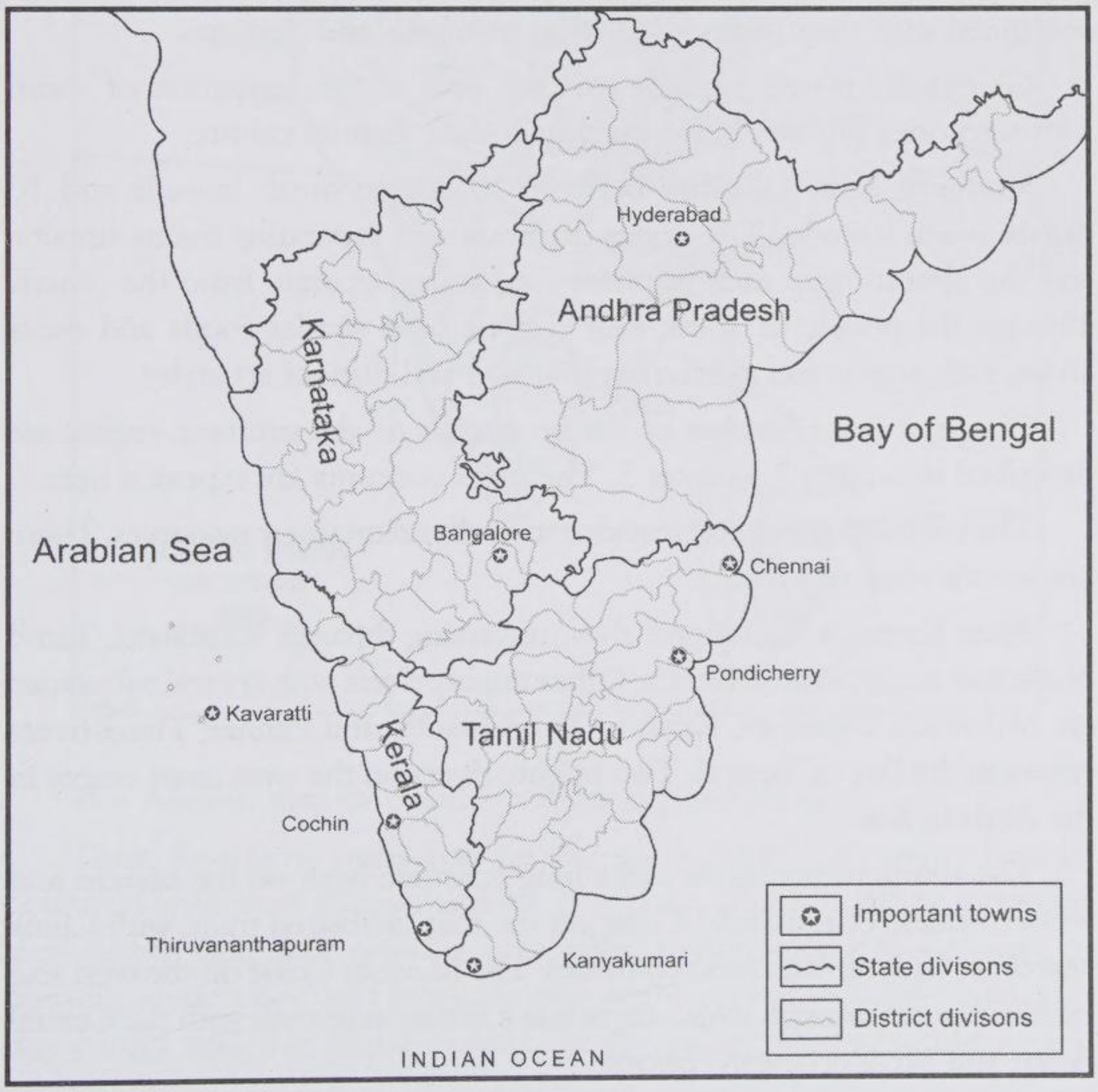
Chapter 31

Early History

This chapter will focus on the early history of the Deccan Peninsula. While discussing some of the main events of the remote past, the chapter will discuss the sources of ancient history for constructing the political life of the rulers and hundreds of the tribes who lived in these regions.

The current map of the southern India is given below:



Antiquity of the history of southern India can be traced back to the period of *Ramayana*. The epic *Ramayana* mentions the name of Agastya the seer who crossed the Vindhyachal Mountains from the north. The epic also describes the geography and the chieftains of the area. To the southwest of the Vindhyas was Dandak forest, to the center and east were the Kishkindha Mountains (believed to be modern day Hampi). It mentions the tip of India and Rameshweram from where the army of Rama crossed over to Sri Lanka. The bridge that Rama's army built is still there. Various regions of Southern India are mentioned in the *Mahabharata* too. In the section known as *Bhishma Parva,* the following territories are listed: Dravida, Kerala, Karnataka and Western Mushika forests. The Greek traders of much later times mention Andhra. Today's Southern India is more or less the same states as mentioned several thousand years ago. Besides the kingdoms and provinces, several ancient tribes continued all through the millennia. They either lived independently or attached to kingdoms or as their vassals. Undisturbed by the fates of the kingdoms, these tribes continued with their distinct life-style, traditions and customs.

Geography played a major part not only in the formation of these four territories but also helped maintain their distinct culture.

Southern India stretches between 18 degree north latitude and 10 degree north latitude.[1] The slopes of mountains separating the mountains and the plateau keep each of these four states separate from the others. Though the people of these four regions have similar foods and dress styles, each region has a different language and distinct art styles.

The prominent features of the geography of the southern region are described in section 2, chapter 5. The main concepts are repeated here.

The southern states are provided with abundant water resources. There are several river systems.

River Kaveri is the longest river, traversing through Karnataka, Tamil Nadu and some parts of Kerala. Other mighty rivers with several tributaries are Mahanadi, Godavari, Krishna, Tungabhadra and Pennar. These rivers empty in the Bay of Bengal. Two mighty rivers on the west coast empty in the Arabian Sea.

The southern peninsula had a long coastline both on the eastern and western sides. Coromandel Coast on the east facilitated trade with China and other Indonesian island countries. The Malabar Coast on the west had excellent ports through which there was a flourishing trade with the Central Asian and Mediterranean regions.

The Ancient map of Southern India is given above.

Thus, Southern India had an extensive trade with many foreign countries both from the east and the west coast. Some of the export items were ebony and teak wood, spices, silks, muslins (very thin variety of cotton), sandalwood and ivory art and crafts, carved wooden items with ivory inlay and five metal objects. In the palace of Nebuchadnezzar,

archeologists have found a beam made of Indian cedar. Similarly, in the temple of Ur, teak logs are found. There was a sea trade route along the shores of Arab peninsula, Persian Gulf to the mouth of several Indian rivers on the west coast of India.

Chinese historical accounts mention maritime trade and several Indian products. This maritime trade must have been along the eastern coast of southern peninsula. When the Babylonian Kingdom declined in power, this trade was taken over by the Arabian traders.

Up until the independence of India, the territories of the kingdoms kept changing due to the changing power patterns of the ruling dynasties.

Early Settlements

Numerous artifacts including stone implements and iron tools and weapons have been found in several parts of Karnataka and Tamil Nadu. Historians believe that these artifacts belong to the Megalithic Age. During this period, people built large stone chambers for burial and erected tall pillars as memorial stones. They lived in caves. They decorated the walls and ceilings of the caves with paints.

According to the narratives given in the *Ramayana*, there were several chiefs who controlled small settlements south of the Vindhya Mountains. Each community had its own banner with some or the other animal as an emblem on it. One tribe of Kishkindha had a monkey on its banner. A neighboring tribe had bear as an emblem on the banner. In the South, the period of *Ramayana*, must have been what historians call the beginning of Neolithic age. By this time farming and domestication of animals had begun. Potteries of that time were colorful and handmade. The black and sometimes thin white colors were used to paint animals and floral motifs on the earthen ware. The earliest painted pottery has been found in the district of Belgaum. Stone implements were used for household purposes but iron was used for tools and small weapons.

Mahabharata period witnessed the rise of kingdoms in these regions. Arjun went to the southern parts to conquer and subjugate these kingdoms so that his brother, Yudhishtra the king of Indraprastha could become an emperor of India. Near Kanchipuram (in the state of Tamil Nadu), there are chariot temples commemorating the five Pandavas and their wife Draupadi.

There are no literary records available for much of the period thereafter.

Sources for the History of Southern India

Major sources for the history of Southern India are inscriptions and coins, literary sources, chronicles of foreign visitors and traders, and archeological artifacts.

Southern Indian rulers were fond of leaving records on stone pillars, copper plates, rock pillars, sculpted walls of the temples and clay seals. These inscriptions are in several languages using three different scripts. The languages used are Sanskrit written in Brahmi, Grantha, Nagari and Kannada script; Tamil and Prakrit were also written in Brahmi script. The number of inscriptions already found run in hundreds of thousands, most of these are dated using Shaka Era and the Lunar calendar. They describe the campaigns and victories of the rulers; some are records of land grants to the priests and scholars. Many are royal orders and charters.

In the words of D.C. Sircar, "The great importance of inscriptions lies in the fact that they generally offer information about personages and events of Indian history about which nothing is known from any other source."[2] The rich legacies of inscriptions that are left by the ruling dynasties of the South provide factual information about the political, social, economic, administrative, religious and cultural life of the people. Epigraphists have been able to develop the genealogies of various dynasties based on the information from the inscriptions. Sanskrit as the language of many of these inscriptions suggests that Sanskrit was the court language of the Pallava kingdom and some other early kingdoms. The official documents, copper plate grants and royal edicts were written in Sanskrit. The presence of Pallava inscriptions found in the Andhra Pradesh suggests that the Pallava kingdom extended up to that region. Many of the Sanskrit inscriptions reveal the genealogy and chronology of those dynasties that were not known previous to the discovery of these inscriptions. There are many bilingual inscriptions as well.[3]

Many Sanskrit inscriptions also describe *Dharma Sastras*, *Manu Smriti* and other legends. This brings into focus the all pervasive common cultural heritage of the North as well as the South. Terms and terminologies used in these inscriptions are the *same* as used in northern India. This is in contradiction to the fallacious idea of the North-South divide.

Most of these plate inscriptions and even the pillar inscriptions are in the government archives and museums. Those that can be photographed by the visitors are the ones at the entrances or inside the temple structures.

A large number of punch marked coins have been found all over the southern territories. Many of these have not as yet been deciphered. Some coins with the Trojan horse etched on them show that the Greeks had a thriving trade with Southern India. Roman coins have also been found dating to the pre-Christian era suggesting rich trade between India and Rome.

Accounts left by the foreign visitors are another source of information about various kingdoms of the south. Hiuen-Tsang visited the court of Pulakesin II (Chalukya king of Badami) and wrote about the conditions in the Chalukya Kingdom.

There are hardly any literary records about the south before the Sangam period except the reference in the *Mahabharata* that all the kings provided armies to both sides of the war. Much later, Patanjali mentions the city of Kanchi in his *Mahabhashya*. He describes the South as the land of the lakes.

Sangam Era

The period of five centuries from 300 B.C. to 200 A.D. is called the Sangam Era because during this period, several poets and writers used to assemble. These assemblies were called Tamil Sangams[4]. According to G.P. Singh, the approximate time of the three Tamil Sangams was as follows:

- The first was around 300 B.C.
- The second was around 0 Common Era
- The third was around 200 A.D.

The writers and poets from this period produced countless poems of which it is said that around only 2,000 still survive. Many of these poems depict the glories of the victorious kings; for example, 8 collections of poems in Tamil by Ettuttogai (150 A.D.) contain poems of historical interest. According to this work, the Kongu region (district of Coimbatore) was ruled by the Cheras around the first century B.C. It also contains a reliable genealogy of the Chera kings of the Sangam age.

The greatest poet of the first century B.C. was Tiruvalluvar who wrote the epic *Tirukkural*. For the past two millennia, *Tirukkural* has been the inspiration for morals and spirituality and political advice. It is considered the classic work of Tamil literature. Here is one quote from the great epic, "That alone can be called a prosperous country which is free from separatist tendencies and people who harm its sovereignty." This type of advice has eternal relevance for several modern day political situations in various regions of the world. Considering that the concept of sovereign states is

relatively a modern day concept, the poet was two millennia ahead of his time.

Here are two more quotes from *Tirukkural* on friendship: "An intimate of any strength will never listen to faults said of friends; and on the day a friend offends, he is content to keep silent." "The world cherishes faithful men who never forsake old friendships, worn by time but unbroken."[5]

Beyond the tip of India where three bodies of water—the Bay of Bengal, Arabian Sea and the Indian Ocean meet, there is a statue of this great poet. The picture of the poet is given at the end of the section.

Besides poems, ranging from three lines to 473 lines were composed by some 428 poets; some poems were composed by women while some others do not have the name of the author. Besides poetry, a comprehensive Tamil Grammar titled *Tolkappiyam* belongs to this era. It is believed that a translation of the *Mahabharata* was also done in the Pandya kingdom. However, that work is not available now.

By the fourth century B.C., in the Buddhist literature, there are records and references about four dynasties. During the time of Alexander's invasion, Satvahana dynasty ruled the areas that now consist of the states of Maharashtra, Gujarat, parts of Andhra Pradesh and northern Karnataka. Yadus—the descendents of Krishna still ruled some parts of Gujarat but the dynasty had declined.

There are some historical references in the Sangam classics to commercial intercourse of the Cholas with the Greeks (*Yavanas*) and the Romans which can further be confirmed by the evidences furnished in the *Periplus* by an unknown Greek merchant of the 1st century B.C. and in the Geography of Ptolemy. The Cholas carried on their trade with these two foreign countries during the period from their famous port, Kaveripaddanam (Kaveripattanam), situated at the mouth of the Kaveri River.[6]

There is no Tamil literature antedating Sangam age. Thus, the Sanskrit and Prakrit works are the only sources of early history of the southernmost parts of the Deccan peninsula.

Archeological evidence about the Sangam period is scant. However, the discovery of 30 urns which have been unearthed from a burial site at Adichanallur indicates that further excavations might yield some more information about this period. The ASI is conducting excavations in the area of Adichanallur near Tirunelveli.

Correlating these finds with the Sangam Age literature, ASI has started excavations at Arikamedu near Pondicherry. This site is believed to be an earliest Indo-Roman settlement.

Sangam literature reflects Vedic values. The interaction between the north and the south must have been continuous to create a common base of cultural values, attitudes towards nature and, ideas of *Dharma* and *Adharma*. During the Sangam Era, most people were familiar with the historic visit of Rama to the south, the story of *Mahabharata* and the legends from the *Bhagvad Purana*. The literary activity of the period suggests three things:

1. Education and learning was encouraged by the ruling dynasties.
2. Three languages were known to the people—Sanskrit, Prakrit and Tamil. In Karnataka, Kannad was a vernacular language in the first four centuries.

People and the rulers loved to record major events. Today, we find these records on the clay seals, walls of the caves, the rocks, the stone pillars, columns of the temples, the copper plates and temple sculptures.

Ruling Dynasties of the Sangam Period

The Cholas, Pandyas and the Cheras

During the Sangam period, three dynasties ruled the southern Indian territories between Tungabhadra River and Kanyakumari, the southern tip of India. On the western coastal region—the present day state of Kerala—the Chera dynasty ruled. The Eastern coastal plains and the Kaveri river basin were under the control of the Cholas. The Cholas ruled from Thanjavur. The middle part between these two kingdoms was under the Pandyas. The Pandyas ruled from Madurai.

Northern parts of their territories were annexed by Asoka.[7] Inscriptions of Asoka mention the names of these dynasties. Before Asoka's time, Kautilya mentions the pearls and muslins of the Pandyan kings. Katyayana, the 4th century B.C. grammarian also mentions all these dynasties.

From Sangam literature and some inscriptions very little of the history of the rulers of these dynasties is known. There were several small chiefs with a few villages to hundred villages. The people under these chiefs led an independent existence and followed local customs within the framework of *Vedic Dharma*. Many of these chiefs such as Ay and Pari sided with one or the other of the three kingdoms in various wars.

The Chola Monarch, Karikala (Karikalan), who ruled around 150 A.D., defeated the Pandya and the Chera kings. In this war, a number of minor chieftains allied with them in the battle of Venni (Kovil-Venni, near Thanjavur). Ilangovadigal (also called Ilanko Adikal), the Buddhist monk lived in the second century A.D. He was a contemporary of the Chola King Karikala, the Pandya Kings Nedunjeliyan and Senguttuvan (173-190 A.D.), and Gajabahu I of Ceylon. He focused on Nedunjeral's war with the Chola ruler Valpah Tadakkai Peruvirarkilli in which both of them died.

Another literary work, *Manimekalai* by a Buddhist poet named Sittalai Sattanar has many accounts of historical value. *Silappadikaram,* a famous Tamil epic poem written about the life and culture of common people mentions the legendary expeditions of the Chera King Senguttuvan as far as the Ganges and the Chola realm. His prologue also refers to the Cholas as a Solar Dynasty.

Who were the Cheras?

Chera Kings believed that they were the descendents of the Yadu dynasty of Dwarka. In Sangam literature, there is a reference to the Chera kings claiming their descent from 42 generations of the kings of Dwarka. Kerala and parts of southern Tamil Nadu formed the erstwhile Chera kingdom with Tiruvanchikulam near Cranganore as its main capital. They rivaled the neighboring dynasties of Cholas and Pandyas in prosperity. Their kingdom extended along the Malabar Coast with several ports. Under the Cheras, trade grew rapidly with many countries in three different continents. Cheras had strong overseas trade links with Rome and Arabia in the west and China in the east. Their main exports were textiles, medicines, gems, ivory and natural products such as spices, and sandalwood. They had the famous harbor towns of Tyndis and Muziris (the present day Kodungallur) on the Arabian coast for maritime trade.

As described by Ettuttogai (150 A.D.) in his poems, Udiyanjeral was one of the prominent Chera kings. He was succeeded by his son, Nedunjeral Adan. Seven other chiefs of this line are described in another group of poems. Another important ruler who is mentioned is Senguttuvan, the son of Nedunjeral Adan. Senguttuvan is considered to be a legend in Tamil literature. As mentioned earlier, around 150 A.D. the Cheras faced the Cholas in a major battle. The Cheras killed Karikalan, the Chola king. In the battle the Chera king also died.

We get a corroborative account of this glorious war between the Cheras and the early Cholas in the poems of another poet named Paranar Kapilar, a poet of the 3rd Sangam. He mentions Chera prince, Selvakkadungo Vali Adan, who ruled in the first and second century A.D.

These documents also confirm that *Kongudesa* (near modern day Coimbatore) formed part of the Chera kingdom in the first-second century A.D. Thousands of Roman coins have been found in the modern city of Karur which many scholars believe to be the city of Vanji mentioned in the Sangam literature. The last Chera king was defeated by the combined forces of Pandyas and the Cholas.

Asoka and his Rock Edicts in the South

Emperor Asoka refers to Cheras as 'Keralaputras' (Children of Kerala) in his rock edicts. However, not much is known about the events related to this dynasty. The last known Chera ruler, Cheraman Perumal converted to Islam and built the first mosque in India. The Cheras faded out of history by the 8th century A.D.

Pandya Kings

Not much is known about the early Pandyan kings. Two poets Mangudi Marudan and Nakkirar describe the great achievements of the Pandya King Nedunjeliyan. As mentioned in *Maduraikkanji* by Mangudi, he ascended the throne at a very young age. Taking advantage of his age and lack of experience, the Cholas and the Cheras attacked him. In the fierce battle at Talaiyalanganam, the Pandya king not only defeated the two opponents but also captured and imprisoned the Chera king. The same book explains several other victories by Nedunjeliyan over the nearby chiefs. Thus, he consolidated his empire against the Cholas of that period.

Pandya kings ruled from Madurai. Sangam literature also mentions many more battles between these three dynasties. It seems that by the end of the third century A.D. these three dynasties declined and for a century or so, along with several chiefdoms, they faced new dangers coming from the Gangas and Kadambas of the Karnataka region.

From Sangam literature we are not able to get much information about the achievements of the rulers from these three dynasties. However, we do get a fairly good picture of their society, administration, economy and religious beliefs.

Religious Beliefs

During the Sangam Era, Vedic Hindus and Buddhists followed their faith traditions in full freedom. The writers and poets of both faiths created rich literature. Senganon—a Chola monarch was a devotee of Shiva and it is believed that he made some seventy temples for Shiva. *Dharma Sastras* were considered guidelines for the kings as well as the people in general. Arundhati, wife of sage Vashishta[8] was worshipped for her piety. The legends from *Ramayana* and *Mahabharata* were known to the people. History of Rama, the Pandavas and the Great War were part of their oral tradition.

The worship of Indra, Vishnu, Sarasvati[9] and Krishna was common. People believed in Karma and reincarnation and the need to adhere to the ethical framework detailed in the *Sastras*. Freedom of religion was accompanied by the freedom of holding public discourses on religious issues.

Social Structure

People were divided into four classes—the learned teachers and scholars formed the first class, the warriors formed the second class and, the third class consisted of the merchants, craftsmen, artisans and the agriculturalists. The fourth class consisted of unskilled laborers. All the classes lived amicably. Warriors were held in the highest esteem. Often at the death of a warrior, a hero stone extolling his virtues was constructed.

Literary people and the scholars were well-respected and patronized by the kings. *Periplus*[10]—a Greek literary work of those times mentions that people lived in contentment and were loyal to their kings. Rich classes lived in big houses made of bricks and mortar while the general public had smaller wooden and thatch houses in villages and towns. The tribal people lived in huts. Royal palaces were ostentatious and were made according to the guidelines of *Vastu Sastra*.

Women held high status and enjoyed many freedoms. Many of them were poets. They were present in all the fun and games and the musical and dance events. Many dances were performed by men and women together. According to the literary sources, in picnics as well as in dice games, women were present. Wine and animal food was part of the elaborate feasts. Many poets gave appreciative accounts of royal feasts that they attended.

Flute, lute, drums and various types of *veena* (plucked stringed instruments) were among the instruments used. Singing, dancing and

feasting were enjoyed by royalty as well as the people. Chola king Karikala was fond of music. He is described as the master of the seven notes.

Buddhist ideas that life is full of suffering and the way to end this suffering is to be free from the cycle of life and death had not yet taken hold of the social or religious outlook. Jaina emphasis on vegetarianism is also not evident in this period.

Political Set up and Administration

Monarchy was the general form of government. The king was considered a father figure and he was supposed to lead a *Dharmic* life to be a good example for his subjects. The control of senses and austerity were expected from a good king.

The kings were not only scholarly but were also good warriors. They often led their troops in battlefields. Elaborate camps were constructed outside the cities. Elephants, cavalry, infantry and chariots were four wings of the army. 'Kalavali' a work of poetry (of the Sangam period) gives details of the battlefield in the Tamil land. It also describes the attire and the weapons of the soldiers.

Economic Life

Metal was known to the people. Weapons, tools and other small gadgets were made of iron mixed with other alloys. Goldsmithy was common because gold ornaments find mention in several literary sources. Many poets describe the ornaments they got as a token of royal appreciation. Agriculture was the mainstay of society. Land revenue was collected by the king.

Silk and cotton weaving were major cottage industries. These were also the items of foreign trade.

Trade, both foreign and inland was very well organized. Proof of the flourishing trade with several foreign countries is available in the works of the Greek writers, the Tamil poets and in the archeological finds. Port cities such as, Puhar, Saliyur and Bandar were prosperous towns with shops and big mansions. The presence of Greek and other nationalities gave these towns a cosmopolitan atmosphere. Horses and gold were the imports and the ships left with spices, gems, jewelry, copper, tin, lead, coral, sandalwood and ivory products. These ports had ship repairing shops and lighthouses.

Port cities of Nelcynda, Muziris and Cannanore were on the west coast. An apt description by Nilakanta Sastri about the extent of this trade is given in this quote, "The large quantities of gold and silver coins struck

by all the Roman emperors down to Nero (A.D. 54-68) found in the interior of the Tamil land testifies to the extent of the trade, the presence of Roman settlers in the Tamil country, and the periods of the rise, zenith and decay of this active commerce."[11] Some coins have the stamp of Tiberius and Augustus. Internal trade was also brisk. Agricultural products, cotton and salt were important items of trade within various parts of India.

Summary

For several centuries before the Common Era, the south had flourishing trade with foreign countries both in the east and the west. Even before the Sangam age, there was a flourishing maritime trade with China, Philippines and Indonesian islands.

The fact that most of it was maritime trade suggests that the kings had ocean going ships, naval ships, manufacturing and ship building. Some famous poets left great literature touching various aspects of life. The four major dynasties of the south were Cheras of Kerala, Pandyas of Madurai, Cholas of Kanchi and Satvahanas of the southwest of the Vindhya mountains.

Concepts to Understand

1. Absence of records leads many writers to resort to guesswork and make assumptions.
2. There was no Aryan Dravidian divide. The people of the entire country have the same genetic markers.
3. Since Aryan is an appellate and does not denote either race or a language group, there is no racial divide between the people of the North and the South.
4. Up to the fourth century A.D. the languages of the North and the South were Sanskrit, Prakrit, Tamil and Kannada using several scripts including Brahmi. However there were some twenty languages of Dravidian group spoken in ancient times.
5. The myth of Aryan invasion has sown the seeds for promoting several other myths; one of these is that the civilized Aryans from Central Asia came and conquered the Neolithic people of the South and through caste system gradually destroyed the native social structure of the southern people. Historians using various sources of history have disproved these myths.
6. Epigraphy from the Southern Peninsula reveals that the people of this area were indeed the Vedic people.

7. Sangam period created rich Tamil literature. Both in theme and in the content, this literature is very similar to the north Indian literature of the period.
8. Wisdom poetry of Tiruvalluvar in short verses is very similar to the genomes in Sanskrit of the Sutra period.
9. Though most of the time the kings and their army were engaged in warfare, the social life and the economy of the country did not suffer. In peace time the kings and the subjects enjoyed feasting, music and dances. Playing dice and other games like wrestling and boxing were also popular.

Questions

1. Small wooden huts with small doorways, with roofs made with thatch, dry grass and palm leaves are seen in the rural parts of the South even today. Does this mean half of India is living in the megalithic age?
2. What is the basis of the notion of the North-South divide?
3. What were the major dynasties of southern India in the Sangam period?
4. What were the major occupations of the people in the Sangam period?
5. What are the major sources of information about the people in this period?
6. According to historical narratives, Asoka gave up warfare after his victory over the Kalingas (in modern day Odisha). The current maps of Asoka's empire show the southern parts as a part of his empire. What type of victory did he have over the southern kingdoms? There is a possibility that his messengers just made the rock edicts proclaiming *Dharma* in several parts of the Deccan and the southern kings did not object to it. In the light of the above facts, discuss the merits of Asoka's claim on the Southern most parts of Indian peninsula.

Enrichment Activity

1. Many historians assume that since the people in the south did not live in houses similar to the residences and palaces built in north Indian towns, there was a cultural divide. The offshoot of this assumption is that the North Indians were advanced descendents of the so called nomadic Aryans who came perhaps from Central Asia, most likely from Germany. Some even claim that they came from the North Pole. The next assumption is that the arrival of these Aryans in the South was the start of Vedic civilization after they defeated the Dravidians. Dravidians[12] is the name given to the people of the Southern India.

Discuss these assumptions. Does the presence of widely diverse urban and rural settlements all over modern day India indicate that the population of the country is in varying stages of civilization?

Critical Thinking Activity

1. In the USA the accent of the people is different in different regions of the country. Does that mean there is a cultural or ethnic divide?
2. In the Sangam period, Southern India had great poets such as Tiruvalluvar who wrote wisdom poetry. Who were the wisdom writers in China in the same time frame? Were there such poets/writers in northern India? Name some.
3. Below are two quotes from *Tirukkural*[13], explain the meaning of these verses. Are they relevant in the contemporary world?

   "Virtue yields heaven's honor and earth's wealth.

   What is there then that is more fruitful for a man?"

   "There is nothing more rewarding than virtue,

   Nor anything more ruinous than its neglect."

Endnotes

[1] Check section 2, chapter 5 about geography of India which covers the geography of the South as well.

[2] *Indian Epigraphy*, D.C. Sircar

[3] More information about the inscription will be given in the chapter relating to each of the major dynasties discussed in this section.

[4] Sangam is a Sanskrit word which means to assemble or assembly. The usage of the word indicates the presence of Sanskrit in the region.

[5] *Tirukkural* 81: 808-809

[6] Source: *Ancient Indian Historiography: Sources and Interpretations* by G.P. Singh

[7] Check map of Asoka's empi: - in section 3, chapter 20

[8] Vashishta was the advisor of many kings of the Iksvaku dynasty

[9] Vishnu is the name given to the Supreme Being with form and a specific function. The followers of Vishnu are called Vaishnavas. Sarasvati *Devi* is considered the positive force inspiring learning and fine arts. Indra is associated with the natural phenomenon of rain making.

[10] The author of *Periplus* gives details of social life and the rich trade between India and Rome and Greece.

[11] Source: *A History of South India* by Nilakanta Sastri

[12] Literal meaning of the Sanskrit word *Dravida* is flow of knowledge.

[13] *Tirukkural* 4:31-32

Chapter 32

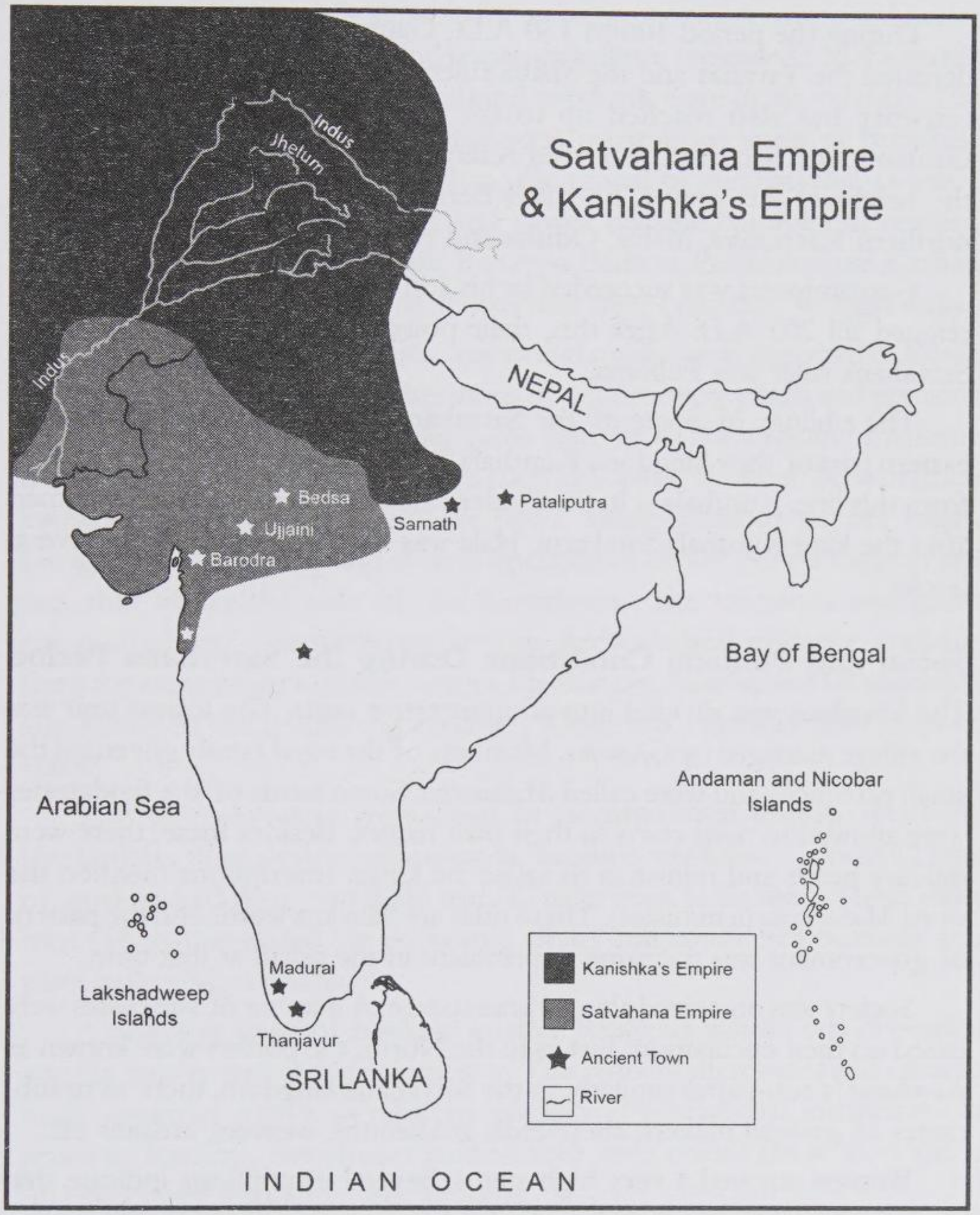
The Satvahana Dynasty of Western India

At the time of Alexander's invasion, Satvahanas were a small power ruling over a portion of coastal Maharashtra. They claimed their descent from the ancient Andhra dynasty of the *Mahabharata* times. During the reign of Chandragupta Maurya, the Mauryan Empire expanded up to the Vindhya Mountains; as a result, some parts of Satvahanas' territory came under the Mauryan rule. For the next two centuries, (from 324-200 B.C.), Mauryans ruled over almost the entire Deccan Peninsula. Below the Kaveri River, there were the Chola, Pandya and the Chera kingdoms.[1]

A great deal of this information comes from 13 rock edicts of Asoka found in the Chitradurga district. These inscriptions were written in 259-258 B.C. Two of these inscriptions at Maski and Nittur sites mention the name of King Asoka.

Asoka's inscription also known as rock edicts are religious in nature. These do not shed any light on the political or social conditions prevailing in these remote areas of the empire.[2] However, it is certain that during this period Buddhism and Jainism became important religions of the Southern Peninsula. It is also believed that one of the Mauryan kings abdicated his throne and became a Jaina monk. Chandragupta Basti, near the famous Shravanabelgola temple is named after Chandragupta. Since Chandragupta Basti was an endowment of a Ganga king (around 9th century A.D.), so it is not clear whether, it was Chandragupta the founder of the Mauryan dynasty or a later king bearing the same name, from whom the habitation takes its name.

After the decline of the Maurya dynasty, Satvahanas gained power in the regions of modern day Karnataka and Andhra Pradesh. The first prominent king who expanded his territory was Simukha. He got the title of *Andhrajateeya* (conqueror of the Andhras) because he conquered the



territory up to the deltas of Rivers Godavari and Tungabhadra in the east.[3] His capital was Pratishthana in modern day state of Maharashtra. Many Simukha coins have been found in Karimnagar district of Andhra Pradesh giving credibility to this claim. Nanaghat inscription mentions him as Raja Simukha.

The map of the Satvahana Empire is given above.

Satvahanas were followers of Vedic traditions. Simukha's grandson, Prince Shatakarni performed *Asavamedha Yajna* and *Rajsuya Yajna*[4] declaring himself as the *Chakravartin* Emperor.

Their conquests and glory declined in the face of attacks from Yavanas and the Shakas.

During the period 106 to 130 A.D., Gautamiputra was the ruler. He defeated the Yavanas and the Shaka rulers and not only regained his lost territory but also reached up to the south of Krishna River basin. Gautamiputra Satakarni also ruled Kalinga early in the second century. At the height of his power, he ruled Berar, Saurashtra, Andhra Pradesh, northern Karnataka, Malva, Odisha and Avanti.

Gautamiputra was succeeded by his son Vashishtputra. His successors reigned till 203 A.D. After this, their power started declining. The last Satvahana ruler was Pulloma.

The siblings of some of the Satvahana rulers continued to rule the eastern part of their kingdom. Kunthala Satakarni and Hala were two rulers from this line. Kunthala is in the modern state of Karnataka and is named after the king Kunthala Satakarni. Hala was also a poet and wrote several books.

Social and Political Conditions During the Satvahana Period

The kingdom was divided into administrative units. The lowest unit was the village managed by *Gramika*. Members of the royal family governed the small provinces and were called *Maharathis*. Some heads of the feudatories were allowed to mint coins in their own names. Besides these, there were military heads and ministers to assist the kings. Inscriptions mention the word *Mahamatya* (a minister). These titles are Sanskrit words and the pattern of government was the same as prevalent in the north at that time.

Society was organized along *Varna* system. A number of sub castes were based on their occupation. Just as in the North, the potters were known as *Kumharas* (a sub-caste) similarly, in the Satvahana kingdom, there were sub-castes of garland makers, shepherds, goldsmiths, weavers, artisans etc.

Women enjoyed a very high status. Several inscriptions indicate that women owned property. Often the land grants were made by the queens for charitable or religious purposes. They also had enjoyed religious freedom. Some of the queens were Buddhists whereas the kings were followers of Vedic religion. This spirit of freedom of religion made it easier for the foreign settlers to be assimilated in the society easily. The sculpture of this kingdom suggests the artistic taste of the people in dress styles and ornaments. Both men and women wore jewelry.

Economic Conditions

As in the northern kingdoms, agriculture was the main occupation and land revenue was the chief source of royal income. The soil of the area is

black and brown especially suitable for growing cotton. As more and better iron implements were made, land under agriculture expanded and the textile manufacturing flourished. Agricultural products were in abundance. The agricultural surplus supported religious institutions such as Buddhist *Chaityas* and Hindu temples. Paithan, the capital of the Satvahanas was a center of weaving. Other cities and towns became commercial centers. Besides Paithan, Amravati, Nasik, Banavasi, Badami, Pattadakal and Karhad were important cities. Many of these cities were protected by high walls.

Surplus agricultural products, spices and muslin were exported to Rome and other Arabian regions. Other items of exports were pearls and precious stones. The presence of Roman coins testifies to the ongoing maritime trade. There were several port cities such as Sopara, Kalyana, Broach (then known as Barygaza). From these ports, ships sailed to far off lands. Geography of Ptolemy and several inscriptions of the period support the fact that under the rule of the Satvahanas, the kingdom saw great commercial and manufacturing activity. Archeological evidence available from the excavations at places such as, Madhavpur, Sannati and Chandravalli also testify to the flourishing economy. Gold was mined in the region of Hatti.

The workers were organized in occupational guilds. Weavers, blacksmiths, corn dealers, oil-mongers, bamboo workers—almost all type of workers had their own guild with an elder man as its head. These elder men (*Shethis*) regulated the economic affairs and conducted business at a place called Nigam Sabha.[5]

A primitive form of banking existed. Religious institutions deposited surplus money and were paid interest. The affluent merchants and citizens made generous grants to religious places and educational institutions to promote learning. Satvahanas minted their own coins. These were made of silver using lead and potin as alloys.

Religion

The royalty followed *Vedic Dharma* but patronized Buddhism and Jainism as well. The Satvahanas performed *yajnas* and other Vedic ceremonies. Land grants were made for temples and Buddhists *Viharas*. Rock cut temples of this period are found in Nasik, Karle and Kanheri. People offered prayers to Shiva, Vishnu, Ganesha, the Sun, the Moon and several other *Devas*. Mother Goddess, called Gauri and Gajalakshmi were worshipped. These ceremonial practices, beliefs and festivals continue to be a part of the religion of this region.

King Hala was a poet. His book, a collection of poems begins with prayers to Shiva, Vishnu and other *Devas*.

Religious life and the freedom of religion was the same as in the northern kingdoms.

Language and Literature

Sanskrit and Prakrit were the two languages used by the people. The inscriptions found are in both these languages. By this time Kannad words were also used. Prakrit was the official language. During this period King Hala wrote a collection of poems and Gunadhya wrote a collection of short stories. Both works are in the Prakrit language.

Art and Architecture

Satvahana rulers patronized all three religions. They gave land grants and monetary help for constructing temples, *Chaityas*, *Viharas* and *Stupas*. The earliest rock structures were in the shape of caves and were called *chaitya* caves. *Chaityas* at Bedsa and Karle are considered to be the earliest Satvahana monuments. The one in Karle is the largest structure in the kingdom. *Stupas* of the Satvahana period are found in about 75 square miles of area in the Andhra region. In these *Stupas,* the actual statues of Buddha and Bodhisattvas are kept. By this time, it seems that the Mahayana sect of Buddhism was becoming popular.

Ajanta Caves

Besides these monuments, it is believed that the caves number 9 and 10 in the Ajanta complex (of modern day Aurangabad) were also built during the reign of Satvahana rulers. Cave 10 is the oldest cave. Cave 9 has a *Chaitya Griha* and a facade adorned with lattice work and windows. These caves originally had only Buddhist symbols such as the *Bodhi* tree and the Wheel of *Dharma*. Later, the statues of Buddha were added. Satvahana rulers expanded the famous monastery of Sanchi.

Summary

Satvahana was one of the oldest dynasties of the South. They ruled parts of modern day Gujarat, Maharashtra, Andhra Pradesh and northern parts of Karnataka. In political policy and administration they resembled the north Indian kings. They left behind a rich legacy of art and architectural monuments.

Concepts to Understand

1. The Satvahanas followed *Vedic Dharma.*
2. The belief that the Southern rulers were a distinct (racial) group is an assumption and has been discredited by the evidence from the inscriptions and other hard evidence.
3. Genetic data emerging out of recent research also emphasizes that the population of the Indian subcontinent has been homogeneous.
4. Sanskrit and Prakrit were the languages of the north and the south in those days.
5. In the face of empirical evidence, theories and assumptions regarding Aryan invasion/migrations into India need to be discarded.
6. Architectural evidence also point to the common cultural thread of the South and the North. This thread was Vedic culture.

Questions

1. What are the common cultural threads between the northern and southern Indian kingdoms?
2. What were the religious attitudes of the rulers?
3. What were the languages of the region during the Satvahana period?
4. Why did the kings perform *Asvamedha Yajnas*?
5. What was the administrative set up during the Satvahana Period?
6. How did maritime trade enrich the kingdom? Which were the ports used for the purpose?

Enrichment Activity

1. Cotton grew in the territory ruled by the Satvahanas. What type of soil is needed for growing cotton? How did the soil help develop cotton manufacturing?

Critical Thinking Activity

1. During the early part of their rule, the Buddhists followed *Hinayana* practices and later on the *Mahayana* sect became more popular. What is the difference between these two sects? What is the architectural proof of the above statement?

Endnotes

[1] Check the map given in section 3, chapter 18 and two maps given in section 3, chapter 20. These maps show the empire of Chandragupta and of Asoka. The map in chapter 18 shows the territory of Satvahanas.

[2] It is not clear from the edicts whether Asoka ruled over these territories or his emissaries were allowed by the ruling dynasties to build those edicts.

[3] Both these rivers empty into the Bay of Bengal

[4] Check section 2, chapter 14 for refreshing memory about these *yajnas*.

[5] Nigam Sabha is a modern day municipal committee or corporation.

Chapter 33

The Kadamba Dynasty

This chapter will focus on the rulers of the southernmost tip of what is today known as the state of Karnataka. This chapter will discuss the major events and achievements of Kadamba dynasty.

From 350 A.D. to about 600 A.D. Ganga and Kadamba dynasties had small kingdoms expanding and shrinking at the expense of each other. By 600 A.D. Kadamba power declined. The Ganga dynasty continued till about 1000 A.D.

Kadamba

The first ruler of this dynasty was Mayura Sharman. He was very well educated in several subjects, *Vedas* and *Vedangas*. He studied at Kanchi that was a part of the Pallava kingdom at that time. Kadamba was considered a vassal state under the Pallavas. Mayura Sharman considered this treatment humiliating. Pallavas used to perform *Asvamedha Yajnas*. In one such ceremony, Mayura Sharman was not invited. Ignored thus, he declared himself sovereign king of Kadamba. This is the time frame when the Gupta kings were expanding their sphere of influence. As mentioned in section 3, chapter 22, Samudragupta, emperor of Magadha subjugated several kingdoms south of the Vindhya Mountains. The Pallavas were their main target. The Allahabad inscription mentions the victory of Samudragupta over the Pallava king, Vishnugupta. Thus, taking advantage of the subjugation of the Pallavas, Mayura Sharman declared himself a sovereign monarch over the territory between the Arabian Sea and the River Malaprabha. Several other tribes such as Abhiras, Banas, Traikutas and other neighboring chiefdoms accepted his overlordship. This was the beginning of the Kadamba Empire. The time frame of Samudragupta was around 340 A.D. Based on this evidence many historians have fixed the beginning of Mayura Sharman's reign at around 345 A.D.

Inscriptions and coins are the best source of information about the rulers of Kadamba dynasty. The following kings from the Kadamba dynasty ruled from 345 A.D. to around 540 A.D.

Mayura Sharman—founder of the empire
Kanga Varman,
Bhagirtha
Raghu
Kakutstha Varman,Raghu's brother,
Shanti Varman, Kakutstha Varman's son,

Shiva Varman, second son of Kakutstha Varman,
Krishna Varman, third son of Kakutstha Varman,
Split in the empire
Shanti Varman's line — Krishna Varman's line
Mrigesha
Ravi Varman
Hari Varman- 519-530 A.D.
Vishnu Varman
Simha Varman
The last ruler of this line was Bhogi Varman

End of his rule 540 A.D.

Hari Varman was the son of Ravi Varman and grandson of Mrigesha. He ruled from 519 A.D. to 530 A.D. The last ruler with declining power was Bhogi Varman who belonged to the lineage of Krishna Varman.

During the reign of Bhagirtha and his son Raghu, the kingdom's fortunes kept fluctuating. When a king depends on the loyalty of its feudatories, even when one vassal pulls out or becomes rebellious, the kingdom becomes unstable. Kakutstha—the next ruler brought some stability to the kingdom. The Talagunda inscription and the Halsi copper plate inscription are important sources for tracing the achievements of this ruler. During his reign the empire reached its peak. The Talagunda inscription describes him as a generous king who loved and protected his subjects. He distinguished himself as a warrior too.

Kakutstha was a good statesman and understood the importance of matrimonial alliances. He arranged the marriages of his sons, daughters and even nephews into some distinguished royal families. In this way, he secured strength and stability of the empire.

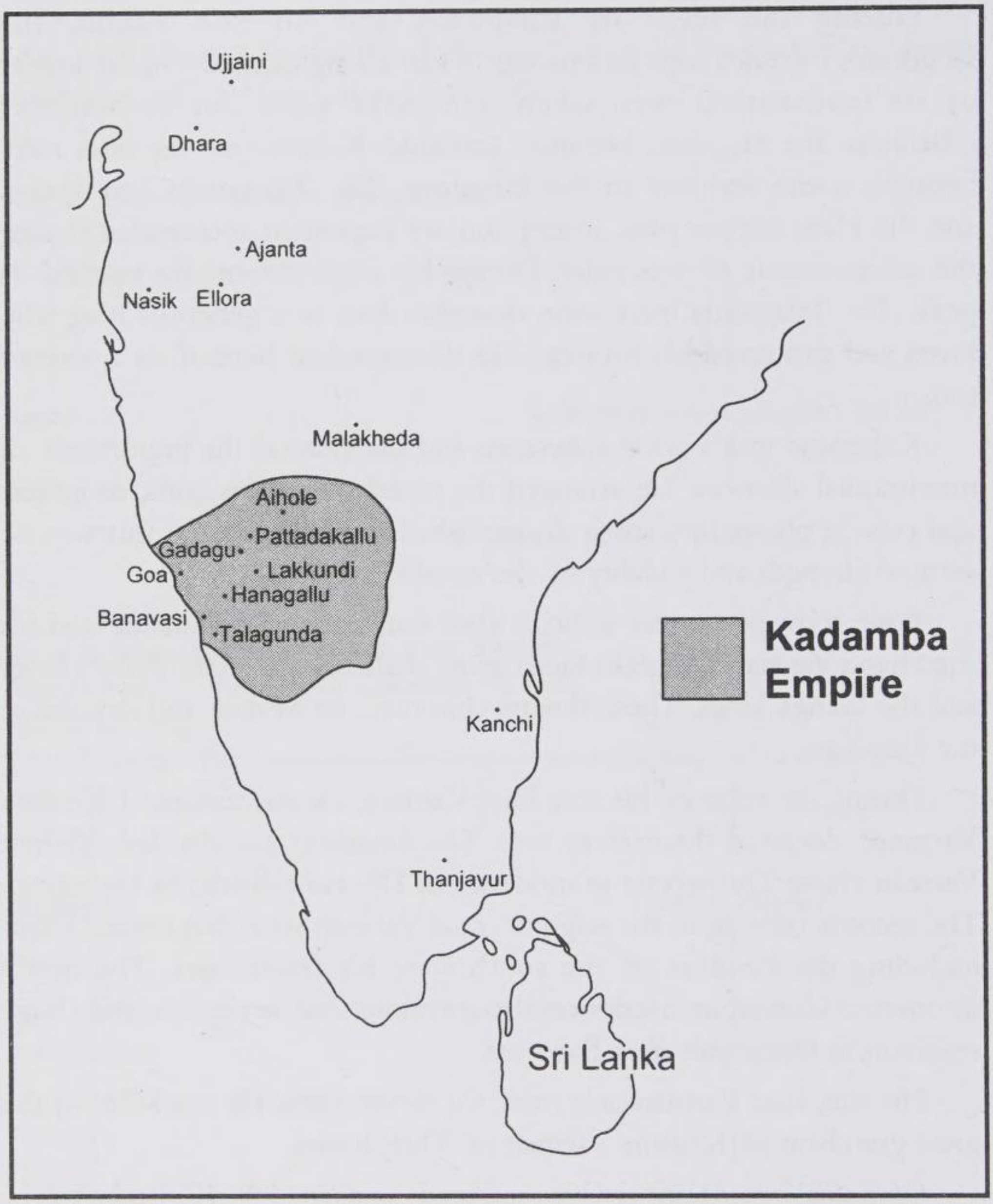
Long term peace was difficult after the death of Kakutstha and his son Shanti Varman. Mrigesha faced many challenges from the Pallava kings and the Ganga kings. These threats continued to weaken and destabilize the kingdom.

During the reign of his son, Ravi Varman, the successors of Krishna Varman[1] declared themselves free. The kingdom was divided. Vishnu Varman chose Thriparvata in modern day Dharvad district as his capital. The records relating to the reign of Ravi Varman state that several tribes including the Pandyas of the south were his feudatories. The newly discovered Gudnapur inscription also mentions that he constructed a huge reservoir at Gudnapur near Banavasi.

His son, Hari Varman only ruled for eleven years. He was killed by the great grandson of Krishna Varman of Thriparvata.

Continual internecine rivalries and feuds weakened the Kadamba rulers. Eventually, by 540 A.D. Ravi Varman was defeated by the Chalukyas of Badami, thus ending the Kadamba dynasty. Bhogi Varman was reduced to the status of a vassal under the Chalukyas.

The map (given below) shows the territory ruled by the Kadamba Dynasty at the height of their power:



Political Conditions and Administration

Kadamba rulers were learned people. They ruled according to the policies laid down in the *Vedas* and other *Dharma Sastras*. They called themselves *Dharma maharajas* much like the kings of Satvahana dynasty. These kings were renowned for their scholarship. Mayura Sharman was master in the study of *Vedangas*. Vishnu Varman was considered an expert in Grammar and Logic. Another ruler Shanti Varman was skilled in many branches of learning.

The kings divided the kingdom in several *Mandalas* (provinces), each being managed by a blood relative as a Viceroy. Some of these *Mandalas*

had hereditary viceroys. This system was good for administration but had a built-in weakness. These viceroys were often tempted to overthrow the ruler and declare their independence. Each *Mandala* was further divided into smaller administrative units known as *Vaishyas* or districts. These districts were divided into *Mahagramas* consisting of 24 villages. Subdivisions of *Mahagramas* were *Dashagramas*. According to the inscriptions, a village was the smallest unit.

As in Northern India, villages were run by locally elected elders. Thus, from very early times, grass root democracy prevailed in Southern India also.

The king had a council of five ministers with a prime minister at the head. These ministers were further assisted by advisors and secretaries who were in charge of various departments.

Some records indicate that there was the post of a chief justice as well. Army officers had their own hierarchy. However the king was the commander-in-chief and often led his army in the battles. He was also the final court of appeal.

The Kadambas had a very systematic way of collecting revenues. Taxes were collected from professionals like blacksmiths, carpenters, oilmen etc. One-sixth of the produce of the land was collected as revenue. Besides these, there was a sales tax on certain items. During their rule, the Kadamba rulers built reservoirs and tanks for storing water for irrigation.

Religion and Culture

As seen in the preceding paragraphs, Sanskrit was the language in common use. The titles of the kings, the viceroys, names of the administrative divisions are all Sanskrit words. Except three inscriptions which are in Kannad, all the other inscriptions are in Sanskrit. Mayura Sharman—the founder of the dynasty was a Brahmin by birth. His successors used Varman, which is a *Kshatriya* last name.

The Kadamba Kings were followers of *Vedic Dharma* and they were well-versed in the *Dharma Sastras* and *Smritis*. The Talagunda inscription begins with an invocation to Shiva. Many other temples were made with Vishnu as the main deity. Vedic ceremonies were performed from time to time. As recorded in the inscription, Krishna Varman performed the *Asavamedha Yajna*.

The Kings patronized all three religions. According to the inscriptions from Mrigesha's rule, three grants were made to the Jainas. Often, the kings consulted scholars from Jaina and Vedic religions. Land grants were

made to Brahmins to promote learning and building *Agraharas* (schools, *Gurukulas*) and temples. A variety of subjects were taught in the schools and the universities; for example, Grammar, Languages, *Nyaya*, *Vedas*, and *Vedangas* were an essential part of the curriculum. Many princes attended these *Agraharas*.

Arts and Architecture

During Kadamba rule, simple temple structures were made with rocks and stones. At the center of the temple was the sanctum sanctorum (*Garbhagriha*)[2] with an attached *Mandapa* (covered pillared hall). The temples were dedicated to the Sun, Shiva, Vishnu and many other *Devas*.

In style and the layout, temples built during the reign of the later kings became more elaborate. There are many features common to Pallava and Kadamba architecture. These temples, such as the temple in Belgaum district have a pyramidal structure surrounding the *Garbhagriha*. This type of structure is called the *Shikhara*. The top of the *Shikhara* is shaped like a *kalasha* (a round pot). The top is called *Vimana*. The structure surrounding the *Shikhara* has horizontal steps.

The temples at Halasi have pillars with decorative capitols. Hattikeshvara temple has doors and perforated screens. Similarly Kalleshvara temple at the same site has octagonal pillars.

Some temples have hallways and vestibules. The Kadamba style of *vimanas* and *shikharas* were used by several other dynasties. Hoysala and Vijaynagara kings used similar designs. Unfortunately, many of these temples have not survived. The remains of the statues and parts of the structures are placed in government museums. In Goa, there are some cave temples attributed to Kadamba times. These cave temples are hewn out of rocks. Like the structured temples, these caves also have a *Garbhagriha* with the deity placed at the center.

Summary

Kadamba kingdom in the heartland of what is now the State of Karnataka had flourishing art and economy. For over two centuries they had good government and economic prosperity. Due to internal family feuds, the Kadamba power declined and they ended up again as feudatories—the point from where the founder of the dynasty began his rise to power and glory.

Concepts to Understand

1. Kadamba rulers were learned people. Therefore they encouraged education for their subjects.
2. Kadamba kings were followers of *Vedic Dharma*. They encouraged and patronized the other two religions as well.
3. Unlike in Europe and Central Asia of those times, wars among kingdoms or feudatories were not caused by religious differences.
4. The administrative pattern was very similar to the one followed by the northern rulers. The royal policies also were in line with the policies laid down in *Dharma Sastras* and political policy prescribed in the *Mahabharata* and *Artha Sastra*.
5. There is no evidence of a north-south divide.

Questions

1. What was the major cause of the decline of this dynasty?
2. Define the words; *Garbhagriha*, *Agrahara*, feudatory and *Asvamedha*.
3. What was the religion of Kadamba kings? Discuss three ceremonies/ practices that were common between the northern and the southern kingdoms of the subcontinent.
4. What were the stable sources of revenue for Kadamba rulers?
5. Discuss three taxes of those times that still exist in most of the countries today.

Enrichment Activity

1. The system of appointing blood relatives as viceroys and then making the post hereditary can be suicidal for the kingdoms. Discuss and explain this statement. How does this policy become suicidal?

Critical Thinking Activity

1. Epigraphy is the main source of information about the history of the early South Indian dynasties. On the basis of the above chapter, explain the role of inscriptions in creating a narrative of the Kadamba rulers.

Endnotes

[1] Krishna Varman was the uncle of King Mrigesha.

[2] *Garbhagriha* is the Sanskrit word for the innermost enclosed room where the main idol is kept. *Mandapa* is a covered hall where the devotees gather for ceremonies, discourses, lectures or prayer meetings.

Chapter 34

The Ganga Dynasty

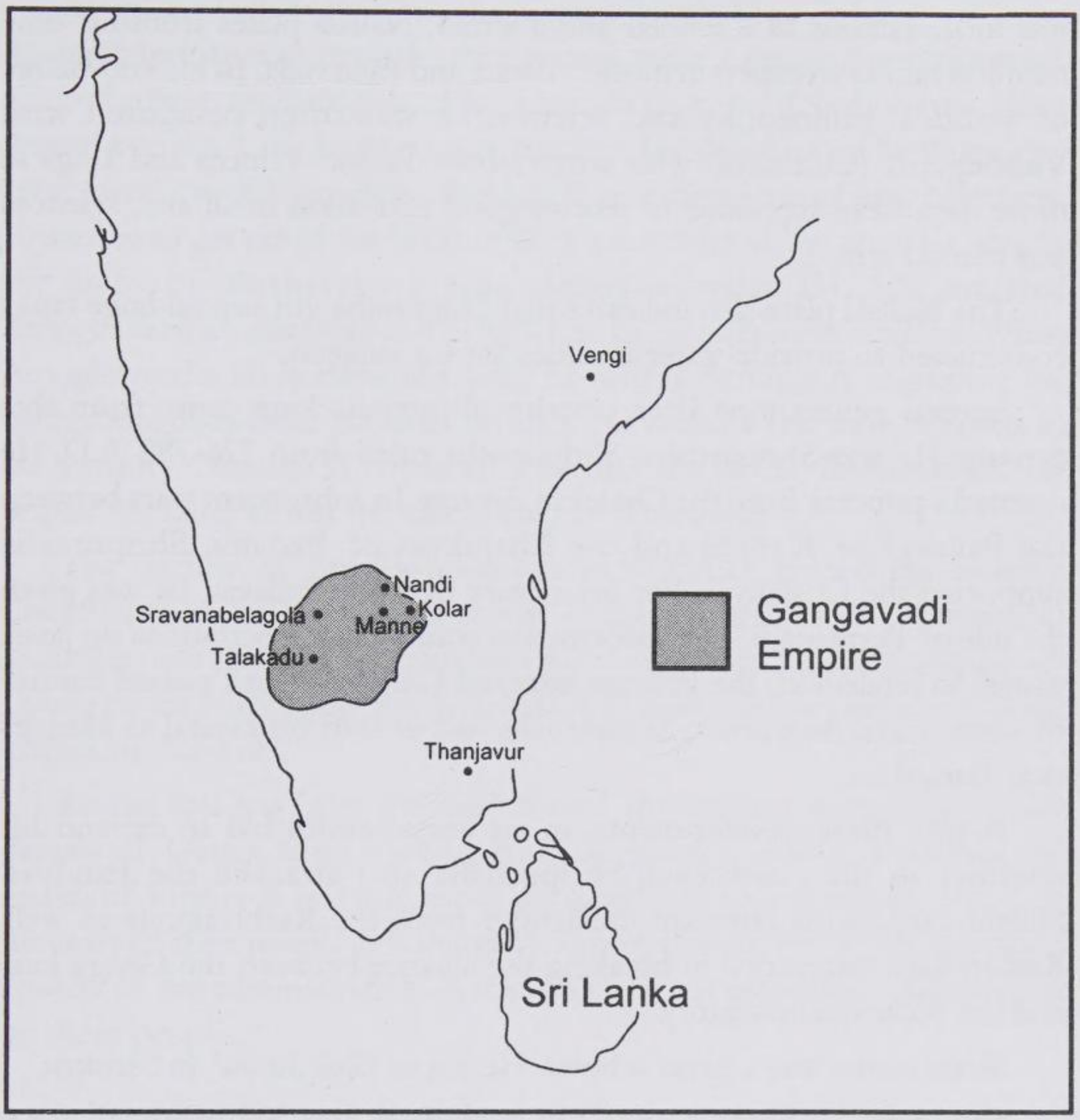
This chapter focuses on the key events during the period of the Ganga rulers. It also discusses some of the achievements made by people of the Gangavadi during this period.

The kings of Ganga dynasty ruled in what was then known as Gangavadi. Their kingdom included the region around Bangalore, Mysore, Mandya, Kolar and Hasan that are today parts of the southern state of Karnataka. They claimed their descent from the Iksvaku rulers of northern India. It may be remembered that Iksvaku was a very ancient dynasty of northern India. King Rama belonged to this dynasty and so did many other Rajput dynasties of Central India. The Andhras of the *Mahabharata* times and the Satvahanas also claimed their descent from the Iksvakus.

The major source of the information about the Ganga rulers are inscriptions, copper plate grants and some literary records contained in the *Puranas*. The book, *Lokavibhaga* in Prakrit language also mentions the Ganga rulers. From about 350 to 500 A.D. the rulers were sovereign kings of this area. Their influence on the neighboring territories kept shrinking and expanding often under the threats from the Pallavas, the Rashtrakutas and even the Kadambas. It seems that they remained a feudatory power under the Chalukyas.

According to one inscription, there is a story about the two princes—Madhava and Dadiga who were under the guidance of a Jaina monk. The monk tested their strength and crowned Madhava as the king of the dynasty. Thus, Kongani Varman Madhava became the founder of the sovereign state of Gangavadi. Although under the Chalukyas of Badami, these kings lost their independence, they continued as a feudatory right up to 1000 A.D.

Given below is the map of the Gangavadi Empire.



On the basis of the inscriptions, the following genealogy of the dynasty emerges:

- Kongani Varman, the founder of the dynasty ruled from 340 to 380 A.D. His capital was Kolar.
- His son Madhava succeeded him.
- Hari Varman was succeeded by his son Madhava II
- Vishnugupta succeeded his elder brother, Madhava II.
- Vishnugupta's successors then ruled Gangavadi as sovereign rulers up to 500 A.D.
- Durvinitha (529-579 A.D.) was one of the most powerful rulers of this dynasty. He shifted his capital from Kolar to Talakadu. His father, Arvinitha had given this place as a land grant to a Jaina settlement.

Durvinitha was a great warrior and according to grant records, he defeated several nearby chiefs and acquired their territory. However, he

was more famous as a scholar and a writer. Nallala plates from his time mention him as an expert in music[1], dance and Ayurveda. In his knowledge of political philosophy and science, he was often compared with Vishnugupta (Chanakya) who wrote *Artha Sastra.*[2] Princes and kings in those days were supposed to receive good education in all arts, sciences and martial arts.

The Nallala plate also indicates that Durvinitha got several huge tanks constructed to provide water facilities for his subjects.

Several generations later, another illustrious king came from this dynasty. He was Shripurusha. Shripurusha ruled from 726-788 A.D. He married a princess from the Chalukya dynasty. In subsequent wars between the Pallavas of Kanchi and the Chalukyas of Badami, Shripurusha supported the Chalukyas. For his victory over the Pallavas, he was given the title of Permanadi. This information comes from inscriptions on Javeli plates. In retaliation, the Pallavas attacked Gangavadi and gained control of some areas. As a result, Shripurusha had to shift his capital to Mannes near Bangalore.

Before these developments, in an unsuccessful bid to expand his territory to the south east, Shripurusha also attacked the Pandyas. Shripurusha faced constant challenges from the Rashtrakutas as well. Rashtrakutas succeeded in breaking the alliance between the Ganga king and the Nolamba feudatory.

Shripurusha was a great scholar. He wrote *Gaja Sastra*[3] in Sanskrit.

Shivamara II, Shripurusha's son succeeded him. Shivamara II was a great writer and a poet. He knew several languages. He wrote *Gajashataka* in Kannad. He also wrote *Gajamatha Kalpana*[4] in Sanskrit and *Sethubandha* in Prakrit. He was a Jaina devotee and gave a land grant for building Chandraprabha Basti at Shravanabelgola. Today, Shravanabelgola is one of the most prestigious Jaina temples of the South.

In his long and continuous battles with the Rashtrakutas, he was captured but his son Marasimha continued to rule as a prince during his father's captivity. For a brief period, Shivamara became free from the Rashtrakutas. Marasimha died by this time. The next king was Shivamara's brother, Vijayaditya. The successors of Vijayaditya ruled from Mannes. However, the second son of Shivamara separated from his uncle's rule. He started the eastern branch of the Ganga dynasty. Under the name of Tamil Gangas, this line of rulers continued to rule till the beginning of the 10th century A.D.

In spite of this division, the Ganga rulers kept fighting with the Rashtrakutas. In this struggle, they gained some support from Nolamba, one of their feudatories. The hostilities ceased only after King Amoghavarsha I of Rashtrakutas married his daughter to Bethuga, the great grandson of Vijayaditya. Bethuga II an aspiring son of king Nitimarga II wanted to get rid of his brother who was a ruler at the time. He sought the help of Rashtrakuta king Amoghavarsha III. He married Amoghavarsha's daughter and helped him in his military campaigns. When Amoghavarsha III became the king, he helped Bethuga II in gaining the Ganga kingdom from his elder brother. He added a few more districts to his territory. Bethuga II remained a faithful ally of the Rashtrakutas. He helped the latter defeat the Chola king of Thanjavur.

The decline of the Rashtrakutas in 973 A.D. helped the Eastern Chalukyas become a powerful enemy. Bethuga's successors continued to resist this new enemy. This exhausted the resources of the Ganga kingdom. Finally by the end of the first millennia A.D. they lost their kingdom to the Cholas of Kanchi.

So far, this has been the narrative of the military achievements and defeats of Ganga kings over a period of seven centuries. However, the march of history is not just about the kings and their achievements. It is the story of their people. It is therefore appropriate to discuss the important aspects of the administration of the kingdom, art and culture and religion of these people.

Administration and Political Policy

As in the northern and other southern dynasties such as the Satvahana and the Kadambas, the Ganga rulers also ruled according to the *Niti Sastras* followed in the Indian subcontinent for over three millennia. *Manu Smriti*, *Artha Sastra*, tenets of political philosophy mentioned in the earlier texts such as the *Mahabharata* and other *Dharma Sastras* were followed by the Ganga rulers. Their titles as *Neetimarga* and *Dharmamaharaja* also suggest that the kings were expected to rule according to the principles of *Dharma* and some of them did rule by these principles. The use of Sanskrit language as various titles and names indicates that the entire subcontinent known as *Bharatvarsha* consisted of Vedic kingdoms.

The kingship was hereditary and even the rulers of feudatories were hereditary. Sometimes, due to the special circumstances (the eldest child being a minor etc.) the kingship was handed over to the younger brother of the preceding king.

Except for the first two centuries, for the most part of their dynastic rule, the Ganga rulers were vassals of the Pallavas, Chalukyas and the Rashtrakutas. Towards the end of their dynastic rule, they were reduced to the stature of a small chiefdom with the new Tamil Ganga and became the vassals of the Hoysala kings. As vassals, they had to pay some tribute to the emperor; otherwise, they were free in their internal administration, revenue management and every other related matter. For their subjects as well as the administrative heads and village heads, the Gangas were their real rulers.

Administrative Units

Ganga kingdom was divided in provinces known as *Nadus* (Tamil Nadu may remind us of the reference to a province). Each *Nadu* was divided in *Vaishyas* (districts) that consisted of a number of villages. The district head was called—*Vaishyapati* and the village head was known as *Gramakuta*. Each village chose elders to make local decisions and carry on day to day administrative duties. These village elders were known as *Praje Gavundas*. It is interesting to remember that *Artha Sastra* mentions *Gramavridhas* as the name of the village elders. Both are Sanskrit names. Besides the elected elders, each village had an accountant and a land surveyor. The towns and villages had elected assemblies to make rules and regulations.

Structure of Administration

The king was assisted by several ministers under the Prime Minister (*Mahapradhana*). Under the army head, there was a hierarchy of military officers. For the management of the palace duties and other routines, there was another set of officials. The king was assisted by a personal secretary, a private secretary and a *Mahamatya*. *Mahamatya* was the supervisor of royal orders and ensured that these were properly executed.

Important Advisors

One of the most famous advisors was Chavundaraya who was a minister and a military officer for a long time. He was advisor to the kings from 963 to 986 A.D. Chavundaraya won many victories against the enemies of Ganga rulers. It is believed that after his death, the kingdom lost a great military commander and the dynasty faced a rapid decline.

Himself a Jaina, he worked for the rulers who were followers of *Vedic Dharma*. He made the famous Gommata colossus at Shravanabelgola. His son built the Chavundaraya Basti at the same site. Chavundaraya was a scholar and a poet. He is accredited with such works as *Charitrasara* in

Sanskrit and *Chavundaraya Purana* in Kannad. He patronized scholars and writers of that time. One of them was Rana who wrote *Parashurama*[5] *Charita.*

Sources of Income

There were several sources of income for the royal treasury. Chief source of income was the revenue from land. To make sure that the revenue was assessed accurately, there was a surveyor who used measuring rods of various lengths. The Sanskrit names of these measuring rods are found on several inscriptions. There were levies on goods in transit, goods for retail sale as well as wholesale products. Besides these taxes, there were taxes on professions such as weavers, blacksmiths etc.

Agraharas—the educational institutions were run by a group elected from among the merchants. This group was responsible for procuring income and maintaining the institutions. Royalty and wealthy people of the kingdom generously contributed for the maintenance of these properties. The village assemblies took care of the wells and irrigation system of the area. Major cities also had officials who were responsible for the construction and maintenance of proper roads.

There was a standing army with three wings—regiment of elephants, cavalry and infantry. The sculpted hero stones have pictures of swords, bows and arrows, shields and spikes. One of the sculpted hero stones has a depiction of a wounded soldier being carried to a safe ground for treatment. Some of these artifacts can be seen in the Bangalore government museum. In that museum, we can also find several copper plate grant inscriptions. The Ganga administration showed great concern for the well-being of the families of the soldiers who died in various battles.

Economic Conditions

The society followed *Varna Dharma*. It was not followed rigidly. The military commander could be a poet and a writer besides being the advisor to the government. There were many professions in the society. Each profession was organized as a guild that ensured proper standards of workmanship and imparted skills to novices. Agriculture, animal husbandry, variety of crafts, metal smelting, textile manufacturing, pottery etc. were the mainstay of the economy. Temple building created jobs for architects, brick layers, wood carvers, sculptors and stone carriers. According to the inscriptions, rice, jowar, ragi, millets, lentils, legumes, oilseeds, castor and many other cash crops (such as cotton, sugarcane, betelnut etc.) were grown in Gangavadi.

To provide abundant water for rice cultivation, canals and tanks were built. Land was granted to certain people so that they could maintain these tanks and the canals. Nallala plate inscriptions tell us that some of the tanks, as large as an ocean, were built by King Durvinitha.

Similarly, Mamballi plates of 6th century describe the abundance of agricultural products of this area.

The Ganga kings encouraged building of new villages by giving grants for starting schools known as Agraharas. Several cities were flourishing commercial centers.

The temples of that time still survive in many places that suggests the existence of highly skilled architects.

Religion and Culture

All three religions were practiced during this period. Many kings worshipped Shiva and constructed Shiva temples. The Shiva temple at Talakkadu was built by one such king. King Vishnugupta built Vaishnava temples. Jainism was popular and Jaina scholars got royal grants to build Jaina *basties* (habitations) at Belgola, Begur, Manne and Chandravalli. As mentioned earlier, the Gommata colossus was constructed at Shravanabelgola.

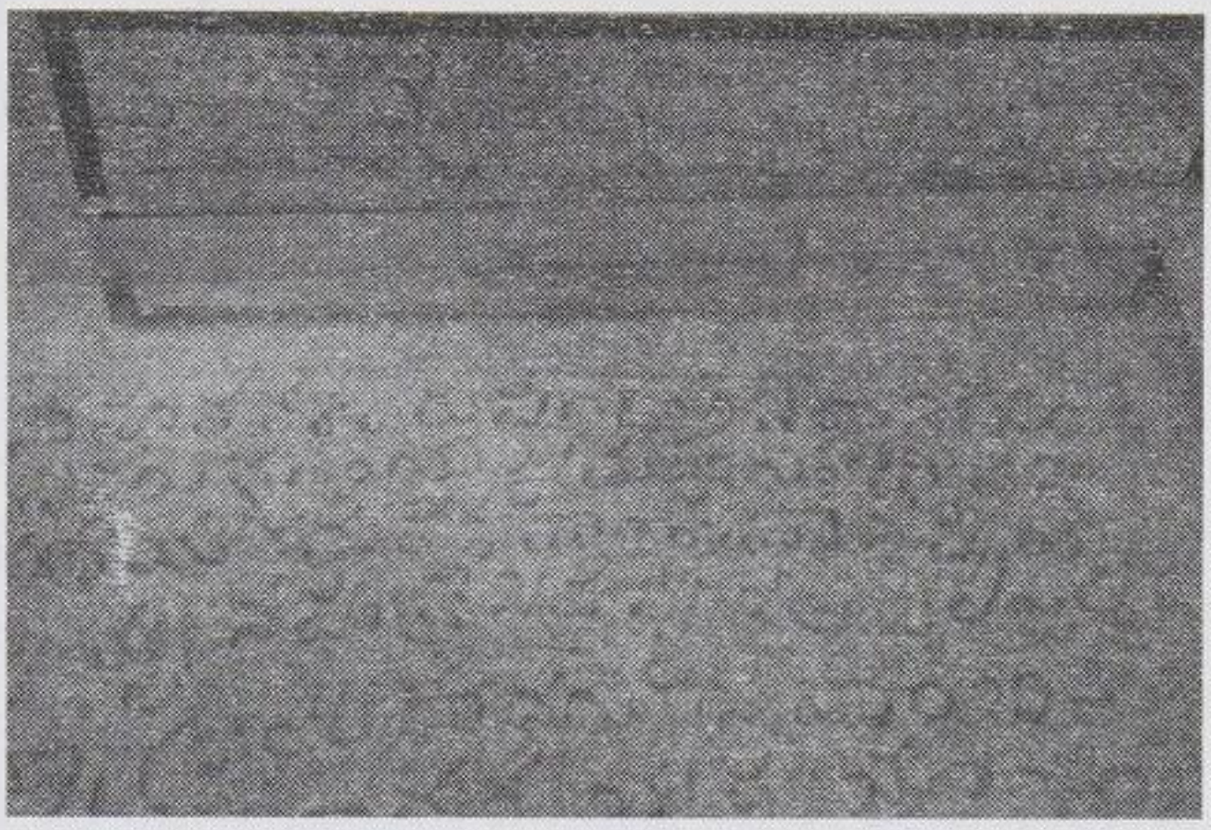
It was also a period of literary creativity. Many scholars wrote in Sanskrit, Kannad and Prakrit. Many Ganga Kings were scholars themselves. Durvinitha wrote both in Sanskrit and in Kannad. He translated Gunadhya's *Vaddakatha* from Prakrit to Sanskrit. He also wrote a Sanskrit commentary on Panini's grammar. Literary works of the famous scholar Chavundaraya, Rana, King Shripurusha and King Shivamara II have already been mentioned earlier. It is not strange that such distinguished scholarly kings encouraged the building of educational institutions so that common people could avail of proper schooling.

Arts and Architecture

Talakkadu was the capital of Ganga Kings from the 5th to 10th century. Except two, most of the temples here were destroyed in the sand dunes. The huge tank is also partially covered with sand. The picture of the sanddunes and the ruins of a temple at Talakkadu is given at the end of the section.

A huge tank built by a Ganga king is seen in the background. It has no water now because the shifting sands fill up the tank and absorb the water. It is said that on festive occasions it is filled with water.

The Kapileshwara temple at Manne, Mahalingeshwara temple at Varuna, Maruleshwara temple at Talakadu and Nageshwara temple at Begur survive the ravages of time and reveal the vision, and the skills of the architects as well as their knowledge of the Vedic themes. Kapileshwara temple is made of brick and granite with pierced windows. All these temples have *shikharas* with a pot shaped *Vimana* at the top. Intricately designed pillars with tiers of different shapes support the main structure. Some pillars have a lion shaped base while others have square bases supporting cylindrical tops. A few temples from the Ganga period exist in Mysore district as well.



Pillar inscription at Shravanabelgola

The architecture style of these temples exhibits Pallava influence.

The greatest monument perhaps is the Gommateshwara monolith at Shravanabelgola. The fifty feet statue of Gommateshwara, also known as Bahubali—the second son of the first Tirthankara is on top of the hill. It is made of fine granite of white color. The expression of the face is serene, the hair curly and the legs have creepers twined around signifying that for a very long period of time he stood immobile. On the base is a lotus flower. The gigantic image has correct anatomical proportions. According to M. Seshadri, "The monolith is perhaps one of the mightiest achievements of ancient Karnataka in the realm of sculptural art."

In order to reach the top of the 469 metre high hill, one has to climb about 644 steps. These steps are cut into the rocks of the hills and have uneven height and surface. The inscription at the base shows that this statue was consecrated by Chavundaraya in 981 A.D.

Around the courtyard where the statue is, there is a circular outer wall with hollow spaces. These spaces have seated statues of the other 23 Tirthankaras. There are engravings above their statues.

The town has a cluster of *basties* and two other Jaina temples, one at the Chandragiri hill and the other at Neminatha *Basti*. The pictures of the Gommata monolith and the temple complex are at the end of the section.

At the base of the hill, is the town with a big tank. Every twelve years, there is a Jaina festival. Thousands of pilgrims visit the site. Elaborate

ceremonies of washing the statue with sandal wood paste, milk, saffron, holy waters of several rivers and vermillion are attended by thousands of people. Helicopters drop flowers, gold leafs and jewels. It indeed becomes a spectacular sight.

Ganga kings have also left hero-stones with fine sculpture. One such hero-stone has a war scene engraved on it. Many statues of Hindu *Devas* and *Devis* are now found in the government museums. Thus, Ganga art reveals a variety of themes and styles.

Summary

Ganga dynasty ruled for over 600 years. Even though they were vassals of various other powers for almost 400 years, they were independent in their internal affairs. All political decisions were made by them without interference from their overlords. The fine monuments of various architectural styles and the literary work of many scholars including those by the kings suggest the freedom they enjoyed. Though Buddhism was also practiced for some time, its influence declined later on. Jainas and Vedic Hindus lived peacefully with each other. None of the battles in which these neighboring powers engaged almost continually had anything to do with religious practices or intolerance of one religion by the other. Coexistence of faith traditions is as typical of Southern India as of northern India.

Concepts to Understand

1. Villages were governed democratically.
2. There is no substance to the commonly promoted myth that north Indians were/are culturally different from south Indians.
3. Kings ruled according to the tenets laid down in the *Dharma Sastras*.
4. Foreign trade and export of spices, sandalwood, ivory and textiles filled the royal treasury with gold.
5. People were gainfully employed and they enjoyed a comfortable living.
6. It was a period of great architectural activity. Some of the monuments built during that time are visited by thousands of tourists from all over the world.

Questions

1. Describe some Jaina and Hindu temples built by Ganga kings. How are these different from each other?

2. During this period, was monarchy based on the concept of the Divine rights of kings?
3. How did the Ganga kings afford to build marvelous monuments? What were the sources of their revenue?
4. What is a profession tax? Is it similar to the modern day income tax?
5. What did the Ganga Kings do to provide adequate irrigation facilities?
6. What were the features of the government and administration that are part of a modern system of government?

Enrichment Activity

1. Students may select one country from Europe and one from Central Asia, compare the level of creativity, social and economic life of the people of these countries with that of the people under Ganga dynasty.

Critical Thinking Activity

1. What do we mean by grass root democracy? What type of administrative and political assignments were handled by the villagers and the elders of the villages during the Ganga rule?

Endnotes

[1] Some of the musical instruments of that time are in Bangalore Archeological Museum. These are assorted varieties of drums, *Veena* and flutes.

[2] Check section 3, chapter 20 for more details about Chanakya's *Artha Sastra.*

[3] *Gaja* means elephant. The book is about how to train and use elephants in the army

[4] *Gajamatha Kalpana* is a study of elephants

[5] Parashurama of the *Ramayana* period was known as a fearless warrior.

Chapter 35

The Chalukyas of Badami

Brief History of the Chalukyas

This chapter will discuss the achievement of the Chalukyas of Badami who created the largest empire of that time. It will also focus on the cultural, social and religious life of the people during their reign.

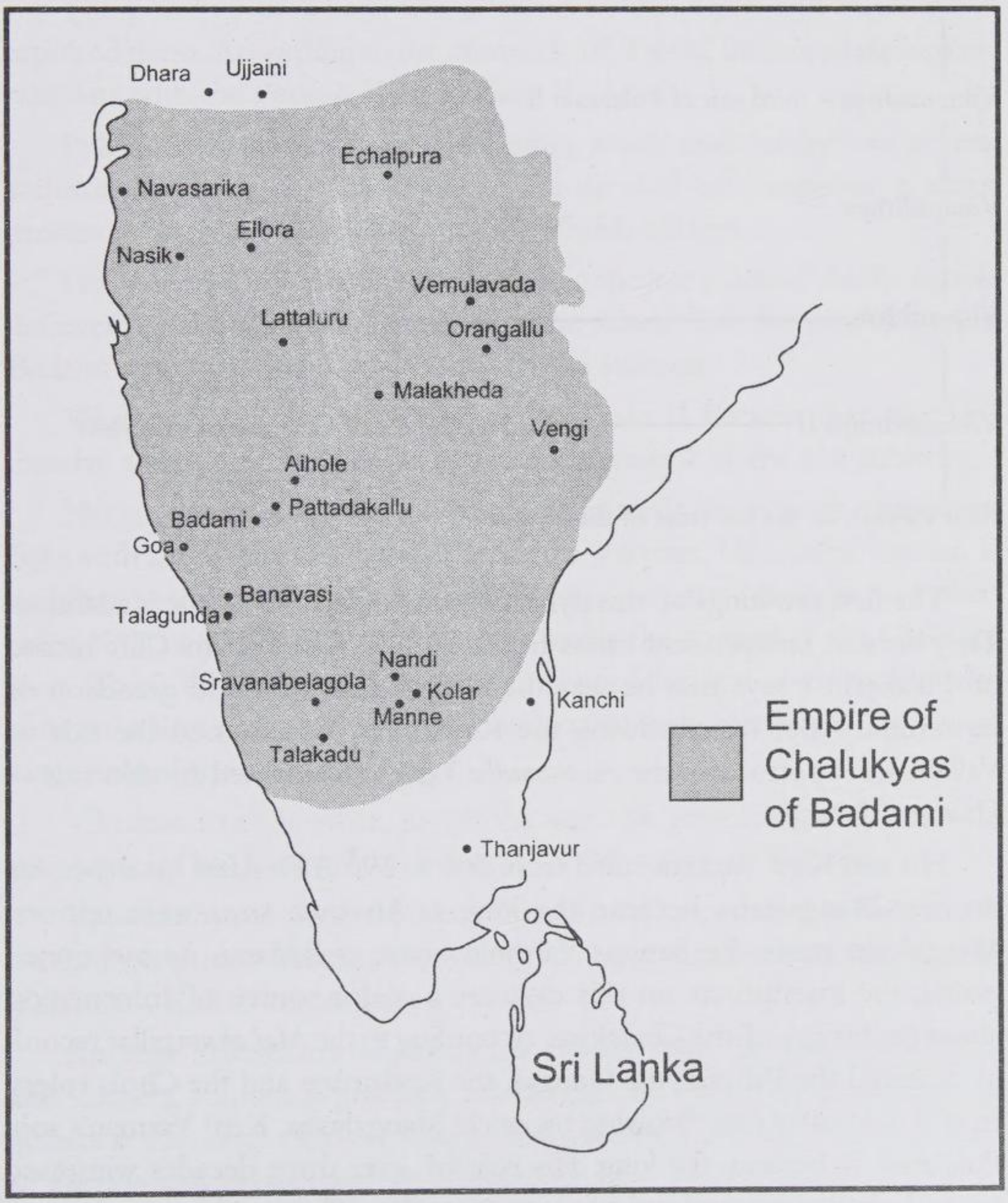
Chalukya rule is split in two branches of the family. The first branch ruled from 540 A.D. to 757 A.D. Their capital was Badami also known as Vatapi. Thus, this branch is known as Chalukyas of Badami. The rulers of the second branch are known as Chalukyas of Kalyana. They are also known as Chalukyas of the eastern branch. The rule of this branch started in 734 A.D. and continued for over four centuries.

The main source of history of the Chalukyas are several inscriptions, coins and many written literary accounts. In their records, the Chinese pilgrim Hiuen-Tsang and Arab writer Tabari also mention this dynasty. On the basis of these records, many scholars have tried to explain the origin of the dynasty. *Nilagunda* record of VikramaVI and the narration by his court poet Bilhana suggest that they were the descendants of the Iksvaku kings of Ayodhya.[1] Some scholars believe that they were the descendents of Iksvaku through the Andhra kings. This has not yet been proved by any written record. Like the Satvahana and the Kadamba kings, the Chalukya kings called themselves Harithiputras. They all had the same *Gotra*,[2] Manavyasa. This origin is described in the Hyderabad Plates. These records are left by Pulakesin II. It is possible that all these three dynasties had a common descent, and that was from the Iksvakus of Ayodhya. However, it is established that for a very long time they lived in Karnataka. A large number of their written records are in Kannad also. The most famous one is the Badami cave record of King Mangalesha. Aihole inscriptions are in Sanskrit but use Kannad script. Recently discovered coins of this dynasty

have Kannad legends. Some of the kings also had Kannad titles such as Priyagallam.

At the height of their empire, they had almost the entire Deccan under their control. Their kingdom comprised modern day states of Maharashtra, Goa, and Andhra Pradesh, parts of Gujarat, Odisha, Madhya Pradesh and Tamil Nadu. This vast empire lay between Kaveri River in the south and Narmada River in the north.

The map of their empire is given below.



Genealogy of the Important Rulers

Ranaraga
|
Pulakesin I
|
Kirti Varman ——— Mangalesha
|
Pulakesin II
|
Vikramaditya – third son of Pulakesin II
|
Vinayadithya
|
Vijayadithya ——— Bhima ancestor of Chalukyas of Kalyana
|
Vikramadithya II
|
Kirti Varman II, the last ruler of this dynasty

The first few kings of this dynasty were feudatories of the Kadambas. They became independent rulers from 540 A.D. The Badami Cliff record of Pulakesin I says that he was the son of Ranaraga and grandson of Jayasimha. After overthrowing the Kadambas, he assumed the title of Vallabha. He performed the *Asavamedha Yajna* and assumed another title—*Dharma Maharaja.*

His son Kirti Varman ruled from 566 to 596 A.D. After his death, his brother Mangalesha became the king as his own sons were minors. Mangalesha made the famous Vaishnava cave at Badami. As mentioned earlier, the inscriptions on this cave are a major source of information about the history of the Chalukyas. According to the *Mahakuta* pillar record, he defeated the Pallavas, the Gangas, the Kadambas and the Chola rulers. In 609 A.D. after overthrowing his uncle Mangalesha, Kirti Varman's son, Pulakesin II became the king. His rule of over three decades witnessed several challenges and subsequent victories. These achievements are

recorded in many inscriptions of that time. The Aihole record is in a Jaina Ashram at Aihole. Built by his minister Ravikirthi, this inscription speaks eloquently about the victories of Pulakesin II over the ruler of Kalinga in the east and Maurya of Puri. Other kings such as the rulers of Gujarat, Malva and Gurjara submitted to him.

In the south, after defeating the king of Vengi, he crossed the Kaveri River and defeated the Pallavas. He made treaties with the Cholas, Pandyas and Cheras of Thanjavur, Madurai and Kerala respectively. According to Hiuen-tsang, even king Harsha of Kanauj was threatened by him.

The port city of Thane was attacked by the Arabs and Pulakesin II repulsed them. According to the chronicle of Tabari, he forged diplomatic relations with the Persian King Khusro II.

Pulakesin II administered his empire wisely and carried out several welfare programs for his subjects. He divided his kingdom in three provinces, each province consisting of 99,000 villages.

His glory did not last all his life. During the last years of his life he was defeated by the Pallavas. He died of the shock. For the next 12 years, Badami remained under the control of the Pallavas.

Vikramaditya I, the third son of Pulakesin II became the king. In a massive attack on the Pallavas, he regained control of the lost territory.

Nerur plates and Hyderabad land grant records describe his continuous fight with three Pallava kings—Narasimha Varman, Mahendra Varman II and Parameshwara Varman. After imposing a decisive defeat on the Pallava ruler, Kanchi (the Pallava capital) came under the control of the Chalukya king. Thus, Vikramaditya I not only regained his lost territory but also annexed a large part of the Pallava kingdom. In these campaigns, the Ganga kings helped the Chalukya kings.

Vikramaditya's brother, Jayasimha was the governor of Gujarat. In that capacity he thwarted the threat from the rulers of Vallabhi.

Vinayadithya succeeded his father in 681 A.D. According to the records on the inscriptions, Vinayadithya achieved major victories over the Pallavas, Kalabhras, Kalachuris and the Keralas.[3]

Another inscription describes his victory over the kings of Ceylon and Kamera. Kamera is probably Khmer region.[4] Persia was under Islamic attacks at that time. Many scholars believe that it is possible that the kings of Ceylon and Persia took shelter with the Chalukyan kings.

Vinayadithya had foreign relations with the king of China. On a goodwill mission, he sent an ambassador to China. The crown Prince Vijayadithya marched towards the North and made some initial victories but was later captured. It was only after the death of his father that the prince escaped from his captivity. He was the next Chalukya king. Aihole records place the beginning of his reign in 696 A.D.

Vijayadithya's reign was peaceful for the most part. With the help of his son Vikramadithya II and his brother-in-law, he gained a victory over the Pandya king. Commemorating the victory, he built the Vijayeshwara temple at Pattadakal.

In 734 A.D.[5] Vikramaditya II succeeded his father. During his reign, his brother Bhima started the dynasty of Eastern Chalukyas with their capital at Kalyana. The most notable event during his reign was the capture of Kanchi from the Pallavas. True to the tradition of the ancient Hindu conquerors, he did not damage the city; instead, he donated a great deal of money to the Kailashanatha temple. This is recorded in the Kannad inscription on a column.

It was a common practice to record the donations and grants on the pillars and columns of the temples to which the money went.

While the Chalukya king was busy in the south, the governor of Lata in Gujarat had to stop the penetration of the Arabs. Arab invaders were steadily moving from Sind towards the east. For the time being the Governor removed this threat for the Chalukyas. Vikramadithya's two queens made huge grants for building two magnificent temples at Pattadakal. Today these temples are known as Virupaksha and Mallikarjuna.

The Chalukyas were too busy expanding in the south and thwarting the invasions from the west and the north to notice other threats. Chalukya kings did not keep an eye on their feudatories. Rashtrakuta was one of the feudatories that had organized revolts against the governors of Gujarat. The kings were also facing challenges from the Pallavas. This placed Kirthivarman II, the next king, in a vulnerable position. After being on the throne for barely nine years, he was defeated by the Rashtrakuta King Dantidurga who got hold of Badami—the Chalukyan capital. In another four years, King Krishna I of Rashtrakuta dynasty completely defeated the last king and acquired the vast Chalukyan Empire.

After ruling for over two hundred and fifty years, the empire ended. The eastern branch of the Chalukyas gained a powerful position around the end of the 10th century. This branch will be discussed in a later chapter.

Administration

The Chalukyan kings assumed the title of *Maharajadhiraja* just like the Guptas of the north and the Kadambas of the south. They divided the empire in provinces known as *Mandalas* or *Rashtrakas*. Governors were appointed to provide security and good administration to the subjects of these provinces. Often these governors were blood relatives of the king. Female relatives were also given this position. These *Mandalas* were further divided into smaller administrative units. *Vaishya* was like the district of modern times. A smaller unit consisted of a group of villages. At the village level, the local elders formed assemblies. These assemblies looked after the day to day matters of the village with the help of the economic guilds.

Besides these provinces, there were vassal states such as the Gangas and the Alupas who were loyal to the imperial power and paid tributes but ran their small kingdoms independently.

The crown prince and the brothers of the kings also assisted in the task of administration. The kings were assisted by the ministers but not much is known about these ministers. Records of the period mention the importance of having loyal ministers. The inscriptions also mention that the kings listened to the learned people who were given the status of *Rajguru*.

Military Might of the Chalukyas

The Chalukyan army was considered invincible. It had an infantry, cavalry, fleet of elephants and navy. The Chinese visitor, Hiuen-tsang mentions hundreds of elephants in the Chalukyan army.

The Chalukya kings had naval and cargo ships as well. This is in contrast to the northern kingdoms. Though from the earliest periods of *Mahabharata*, maritime trade was flourishing using navigable rivers, the need for a naval force was never felt. Most of the intruders came from the west and northwest by land. For the most part, traders also used land routes. As a result, the naval force was not a part of the military might in the northern kingdoms. According to the inscriptions, King Manglesha defeated Revatidwipa with the help of his naval fleet. Similarly, King Pulakesin II won victory over Puri using his naval fleet.

In the southern parts of India, there were port cities on both the east and the west coast. Maritime trade with the eastern island countries and the African and Arabian countries on the west coast was thriving.

The sources of revenue for the Chalukya kings were the same as in other kingdoms. The major source was the land tax. There were taxes on professions, on goods in transit and excise on the retail sales.

In Kurugodu—Bellary district, there is an interesting marking of a measuring rod on a rock. This marking suggests that in order to assess the land tax; the surveyors ensured that the land was measured accurately.

Religion and Culture

The Chalukyan kings were Vedic kings who assumed titles of emperors and performed *Asavamedha yajnas*. During their reign, a large number of magnificent temples were built. These temples were dedicated to Shiva, Vishnu, Sun, Ganesha and several other *Devas*. Most of the kings were Vaishnava. Their royal emblem was *Varaha* (boar). Vikramaditya I became a devotee of Shiva. As in the rest of the country, there was complete religious freedom. Donations were generously made to all places of worship including Jaina temples and the Buddhist *Ashramas*. Ravikirthi—a military commander of Pulakesin I built a big Jaina temple at Aihole. Around the capital city of Badami, there were several cave temples dedicated to various *Devas* and manifestations of the Supreme Being.

Chalukyan queens not only took part in the administration of the empire but were also responsible for constructing temples. One such queen by the name of Vinayavati built a temple for Trimurti[6] . Many temples had *Trimurti* and *Ardhanarishwara* painted on the ceilings.

It is true that the kings and their governors were often engaged in various offensive and defensive wars. At the same time, the people of the kingdom enjoyed freedom of religion. Women enjoyed high status and had access to higher education. They participated in administrative work and took part in public discussions. Members of royal families were well versed in at least three languages—Sanskrit, Kannad and Prakrit. Vijayanka who was also a governor of a province was a Sanskrit poetess. Another illustrious Sanskrit writer was *Dandanayaka*[7] Ravikirthi. The Aihole Sanskrit record was composed by him.

Records of the period were written in Sanskrit and Kannad.

Mathas, *Agraharas* and *Ghatikas* (schools and universities) flourished in the kingdom. These were funded and maintained by traders and the merchants. Besides academic and vocational education, people were fond of learning fine arts such as music, dance and theater. Various types of musical instruments such as *veena*, drums, flutes and conch shells are found sculpted on the panels of the temples.

Social and Economic Conditions

The social system was also much the same as in other parts of the country. Skilled workers and other professionals were organized in guilds. There were guilds of cobblers, weavers, masons, sculptors, stone cutters, garland makers, blacksmiths, goldsmiths, flower sellers etc. Laksmeshwera and Varagiri were famous centers for silk manufacturing. Both inland and maritime trade flourished. Countries such as China, Malaya, Arabia, and Africa were partners in this trade. There were several port cities that were busy exporting silks, spices, sandalwood, ivory goods and cotton. Some of the most important port cities on the west coast were Thana, Mangalore, Kalyana and Sopara. Fishing was a flourishing business all around the coastal lands.

In spite of the crisscross river system in the south, the kings also ensured adequate water supply by building reservoirs, tanks and link canals. At Gudageri (modern day Dharvad district) alone, there were about 14 irrigation tanks.[8]

To encourage animal husbandry, cows were donated to villages. Such donations were also recorded. The stone inscriptions about such donations are called Gosasa memorial inscriptions.

Art and Architecture

Economic prosperity and social stability resulted in the creativity of the people. The greatest achievement of the Chalukyan kings has been in the field of architecture. More than hundred temples are found in the region of the Malaprabha basin.

The earliest rock cut structures are in Badami and Aihole. At Aihole, there are three unfinished rock cut temples, a Hindu, a Buddhist and a Jaina.

The Badami caves are finished structures. Though these cave temples look simple from the outside, inside they are ornately decorative with finely sculpted statues of Vishnu, Shiva (as *Ardhanarishwara*, and *Nataraja*), Varaha, Durga and many other *Devas* from *Bhagvad Purana*. Cut deep into the rock are the sanctum sanctorum surrounded by a pillared verandah as well as an open hall supported by sculpted columns. Badami cave temples also had richly colored paintings. With the passage of time, these paintings have disappeared.

Making rock cut shrines is a difficult art which involves cutting grooves into the rock and then chiseling inside the rocks to make giant statues,

sculpting floral designs on the pillars, and making sculpted images on the walls and columns. M. Sheshadri aptly points out, "The Chalukyas cut rocks like titans and finished like jewelers". Many Aihole temples show the influence of the Gupta art style. These temples have *kalasha* motifs and images of Ganga and Yamuna on the door frames. Chalukyan art was at its peak in the Virupaksha and Mallikarjuna temples at Pattadakal and Nav Brahma temples at Alampur.

The Nav Brahma or nine temples dedicated to nine forms of Brahma were built near Alampur, about 200 kilometers south east of Hyderabad in Andhra Pradesh. Made of red stone, these are beautiful structures. Though dedicated to Brahma, inside there are Shiva's statues. Alampur is a small village on the banks of Tungabhadra River. Built during the period from 7th and 8th century, these are the earliest temples in the modern day state of Andhra Pradesh. The pictures of the temple are at the end of the section.

Summary

Chalukya kings followed the path of *Vedic Dharma*. They patronized the construction of several Hindu, Jaina and Buddhist temples. The general spirit of religious tolerance among the people and the royalty is revealed by the fact that the temples dedicated to different deities exist side by side. From the same dynasty, some kings were Vaishnava and some were devotees of Shiva. The kings looked after the needs of their subjects. To help farmers, several canals and ponds were constructed by the Chalukya kings. Even though warfare was a constant part of their life, it only affected the size of the empire. The common men such as farmers, merchants, craftsmen, women, and children were never harmed. It is fascinating to know that the vassal states were independent to follow their own religion and run their territory according to their own systems.

The architectural monuments of the period, sculpture, various types of inscriptions, literary works of the scholar of the kingdom and the foreign accounts help us construct the history of Chalukya dynasty.

Concepts to Understand

1. Chalukyas had a huge empire divided in several provinces. Besides the directly administered provinces, the empire had several powerful vassal kingdoms.
2. Their administrative system resembled administration in the northern kingdoms.

3. At the local level, as in northern India, there was grass root democracy.
4. Trade and economy flourished. The Chalukya period is known for general prosperity and great artistic activity.
5. Besides the land battles, Chalukyas also led successful naval expeditions.
6. The Chalukya kings looked after the needs of their subjects. Education and learning were encouraged. Several new *Agraharas* were built with generous royal grants and donations made by the rich people.

Questions

1. How were women treated in the Chalukya period?
2. Study the pictures of monuments given in the chapter and describe the main features of the temple architecture of this period.
3. What is the proof that all three religions existed peacefully?
4. How did giving full autonomy to the vassal states make the empire vulnerable?
5. What were the causes of the decline of the dynasty?
6. What are the main sources of history of the Chalukya dynasty?

Enrichment Activity

1. Study the map of the Chalukya kingdom at its height; compare its size with that of a European country of that time. In 7th century A.D. which country in Europe came close to the military power and prosperity of the Chalukyas?

Critical Thinking Activity

1. Relating past to the present:
   a. Describe three administrative and democratic features of the Chalukyas which are a part of the political systems of modern day democracies. Use examples.
   b. What are the sources of royal revenue used by modern governments even today? Provide examples.

Endnotes

[1] Check section 2, chapter 14 about the Iksvakus.

[2] *Gotra* denotes the lineage of a person from the first seven seers of the Vedic Age.

[3] Source: Jejuri Record of 684

[4] Source: Kolhapur Plates 693
[5] Source: Lakshmeshwar Record
[6] Check section 2, chapter 11 about *Trimurti* and *Ardhnarishwara*
[7] *Dandanayaka* is the title used for a judge and even the commander of the army.
[8] Source: Shiggaon Record 707 A.D.

Chapter 36

The Pallava Dynasty

This chapter will focus on the important events of the Pallava period that led to the creation of a vast Pallava Empire. It will also highlight the significant contribution of the Pallavas in the field of arts, architecture, economic development and culture. A great deal of information about this dynasty and the vast empire that the rulers controlled comes from the inscriptions. These inscriptions are in three languages, Tamil, Sanskrit and Prakrit. Sanskrit was the court language of the Pallavas. Many of the Pallava records in Prakrit and Sanskrit have also been found in areas in the present day state of Andhra Pradesh. This suggests that their rule extended up to that territory in the north.

Most of the lithic inscriptions are found on the sculpted walls of the temples especially in their capital city, Kanchipuram and the port city Mamallapuram.

Valuable information is also contained in the literature of that period. For example, a Tamil poem *Nandikkalambakam* is about Nandi Varman III, the Pallava King who ruled the kingdom from 846-869 A.D., with his capital at Kanchi.

The long rule of the Pallava dynasty is marked by continual wars; first with the Chalukyas and the Pandyas and then with the Pandyas and the Rashtrakutas.

Genealogy of Pallava Rulers

Pallavas believed themselves to be the descendants of Ashvathama—son of Dronacharya of the *Mahabharata* period. The Pallava kings ruled from the 3rd century A.D. to 9th century A.D. Their empire kept expanding and shrinking all through this period. Their major enemies were Chalukyas of Badami from the northwest, later the Rashtrakutas from the same region and Cholas of Thanjavur from the south. Matrimonial alliances with the

Rashtrakutas saved the Pallavas from attacks by the Gangas and the Cholas. Eventually, by the 9th century their last rulers had only a few districts left under their control.

Asoka Varman 250 A.D.

Simha Varman 275 A.D.-300 A.D.

Buddha Varman

Buddyankura

Kumarvishnugopa I 350-375 A.D.

Skanda Varman I 370-385 A.D.

Vira Varman 385-400 A.D.

Skanda Varman II 400-436A.D.

Simha Varman I 436-460 A.D.

Skanda Varman III 460-480 A.D.

Nandi Varman 480-510 A.D.

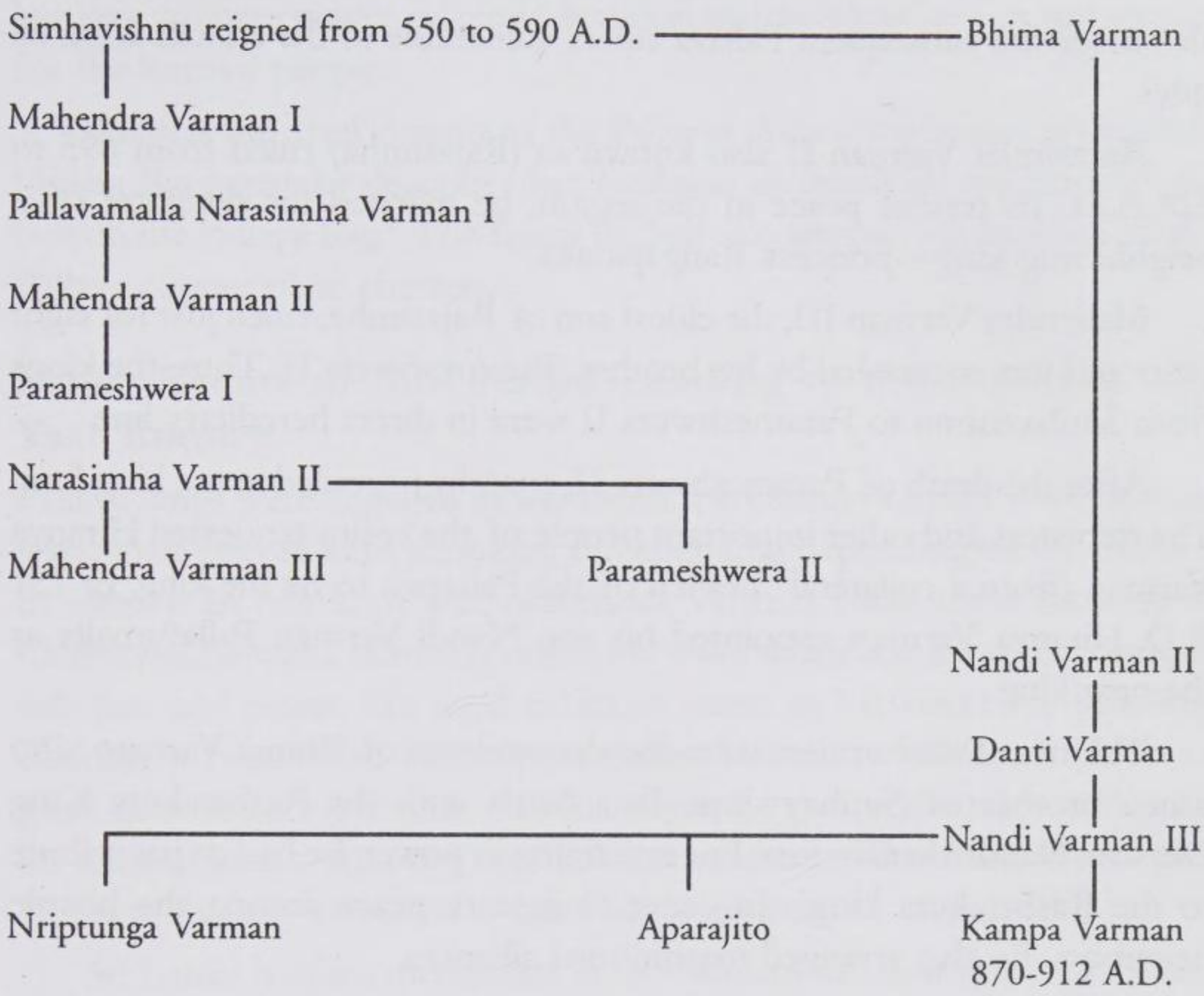
Kumarvishnu Varman II 510-530 A.D.

Buddha Varman 530-540 A.D.

Kumarvishnu III 540-550 A.D.[1]

For about five decades, the powers of the rulers from several dynasties of the South were curtailed by the rise of a tribe known as Kalabhras. The Pandyas, Pallavas and Cholas suffered at the hands of Kalabhras. Not much is known about the Kalabhra kings except that they were known as evil kings. Finally, together the Pallava king Simhavishnu and the Pandyan king defeated the Kalabhras. Chalukyas of Badami also joined with the Pandyas and the Pallavas in defeating the Kalabhras.

After the defeat of Kalabhras, once again, the Pallava dynasty became a great power. The genealogy of these Pallavas is given below:



Simhavishnu reigned from 550 to 590 A.D. He was succeeded by his son Mahendra Varman I who ruled for forty years. Pallavamalla Narasimha Varman I succeeded his father and ruled from 630 to 668 A.D. He was one of the greatest rulers of the Pallava dynasty. In 642 A.D. he defeated Chalukya king, Pulakesin II. He also sent two naval expeditions to Sri Lanka.

He was a patron of the Sanskrit poet Dandin. Hieun-Tsang, the Chinese traveler, visited the kingdom during his reign and was impressed by the splendor of Kanchipuram (the Pallava capital).

Mahendra Varman II ruled for ten years. Most of the time he spent fighting with the Chalukya kings.

From 670 to 700 A.D., Parameshwera I ruled. The struggle with the Chalukyas continued during his reign. Finally, he not only lost Badami but also lost Kanchi to Vikramadithya I. Kanchi remained under Chalukyan power for a while. In these wars against the Pallavas, the Ganga rulers aided the Chalukyas. Kanchi was attacked by the Chalukyas three times. This continuous warfare was disastrous for both dynasties. It weakened the Chalukyas who were vanquished by the Rashtrakutas by 753 A.D. It

also made the subsequent Pallava rulers vulnerable to the attacks from all sides.

Narasimha Varman II also known as (Rajasimha) ruled from 695 to 728 A.D. To restore peace in the region, he married the daughter of a neighboring king—princess Rangapataka.

Mahendra Varman III, the eldest son of Rajasimha, ruled just for eight years and was succeeded by his brother, Parameshwera II. Thus, the kings from Simhavishnu to Parameshwera II were in direct hereditary line.

After the death of Parameshwera II, anarchy prevailed in the kingdom. The ministers and other important people of the realm requested Hiranya Varman (from a collateral[2] branch of the Pallavas) to be the king. In 731 A.D. Hiranya Varman appointed his son Nandi Varman Pallavamalla as the next king.

The next Pallava rulers were the descendents of Bhima Varman who was a brother of Simhavishnu. In a battle with the Rashtrakuta King Dhruva, Nandi Varman lost. For remaining in power, he had to pay tribute to the Rashtrakuta king. In order to restore peace among the hostile neighbors, he also arranged matrimonial alliances.

Danti Varman succeeded his father in 796 A.D. In the Bahur copper plate inscription, Danti Varman is praised for restoring law and order and for promoting *Dharma*. The inscription praises him for 'ruling the earth according to *Dharma* even in the Kali[3] Age'.

Nandi Varman III ruled from 846 to 869 A.D. He married a Rashtrakuta princess to consolidate an alliance with the powerful Rashtrakuta King Amoghavarsha I. After his death, three of his sons ruled the kingdom one after the other.

According to the Bahur Plate inscription, Nriptung Varman ruled from 869-877 A.D. He was succeeded by his brother Aparajito. After his brother's death, Kampa Varman ruled till 912 A.D.

These six rulers were in direct hereditary line. Kampa Varman was the last important Pallava ruler. By this time, the power of the dynasty was already dwindling. Eventually the kingdom was taken over by the Cholas of Thanjavur.

Many kings assumed the titles as well as different names after the coronation. The Pallava kings also adopted certain *Birudas* from the time of Mahendra Varman I. These long details are carved and sculpted on the walls of the rock cut cave and structural temples. *Birudas* (Sanskrit) are special type of descriptive titles which describe the rulers' achievements,

heroism, military power, religious devotion and their love of arts and respect for the learned people.

Bull was the royal insignia of the Pallavas. According to one inscription, Queen Rangapataka describes her husband as *vrsadhvaja* referring to the bull on the Pallava flag.[4] The figure of bull also appears on the seals of the Pallava copper plate charters.

Major Events of this Period Leading to the Building of a Vast Empire

Pallava kings were engaged in wars with the Chalukya kings. Due to these wars, their empire kept shrinking or expanding depending on their defeat or victory. In one such war, Mahendra Varman I lost some territory to Chalukyas. He was a talented person. He was a writer and always encouraged scholars and poets. He used to invite them to his court for scholarly discourses. Narasimha Varman succeeded Mahendra Varman I. He was a great general. In a war with the Chalukyas, he gained the territory lost by his father. He also captured the Chalukyan capital of Badami and for about 12 years, this city remained under Pallava control.

Sri Lanka is often mentioned in the Sanskrit inscription of the Pallava period. It suggests that some of the Pallava kings conquered Sri Lanka.

By the beginning of 10th century A.D. the Pallava kingdom was finally taken over by the Cholas of Thanjavur.

Administration

Monarchy was the most common form of government. *Kural* a literary work of the Sangam period emphasizes the importance of the king by stating that the army, the subjects, food, ministers, allies and forts should all be under the control of the monarchs. Epigraphic records indicate that the kings maintained the same exalted status as existed in the Sangam Era. The epigraphs also mention the qualities of the kings specifically or indirectly. Some of these qualities were that the kings were supposed to be righteous, well-educated, truthful and fully responsible for the welfare of the people. After making extraordinary achievements, many kings took such titles as *Purusottama* after the name of Vishnu or Rama. Similarly, after the construction of the Kailashanatha Temple in Kanchipuram, Rajasimha took the title of *Purusottama*. Pallava copper plates repeatedly emphasize the duty of the king to protect and ensure the welfare of his subjects. Ensuring internal security and stability and protection from foreign attacks were the most important responsibilities of the kings.[5] Several

copper plates and other inscriptions describe the kings as upholders of justice and *Dharma* by giving them titles such as *Sri Dharma Kavacha, Sri Dharma Nityah, Dharampalaka* etc.

There were laws of succession to the throne. The Sanskrit inscriptions indicate four generations of the ruler—the ruler, his father, grandfather and great grandfather. It suggests that normally, the eldest son of the king succeeded him. There were some exceptions. As pointed out earlier, one such case was when Nandi Varman became the king.[6]

The coronation of a king was an important ceremonial event. The crown prince (referred to as *Yuvaraja*) held responsible positions and had many administrative duties. They also led the army in the wars. Many Pallava *yuvarajas* had gained fame before they became kings.

The kingdom was divided into *Rashtras*, *Vaishyas* and *Gramas*. This is the same administrative division that has been discussed in the Maurya and Gupta dynasties of the North and the Chalukyas and Rashtrakutas of the South. Sanskrit inscriptions of the Pallava period give us the names of some of these provinces (*rashtras*) such as Munda Rashtra, Karma Rashtra, Karmanka Rashtra, Vengo Rashtra[7] etc.

Districts were the smaller subdivision of the *Rashtras*. These were called *Kottams* or *Koshtakas*. It is interesting to note that with the change in the dynastic rule, many *Kottams* and their names remained unchanged. The province of Tondaimandalam with all its lands and *Kottams* remained the same.

The districts were divided into villages. Many villages were donated as land grants to learned people and the temples of these learned people. Sanskrit and bilingual land grant records mention several such villages.

Development of Urban Complexes—Major Cities and Ports

From the early Pallava kings onwards Kanchipuram was the capital of the Pallava kings. During the 4th to 6th century period, some of the earliest charters in Prakrit and Sanskrit languages were issued by the kings from Kanchipuram.[8]

Kanchipuram also known as Nagareshu Kanchi has been one of the most famous cities of the country. In the past Kanchi was a vibrant spiritual, cultural and academic Center. It is believed that the city owes its name to the Kanchi trees that abound in the area. The city finds mention in ancient Tamil literature. Hieun-Tsang visited it and described its glory and prosperity in glowing accounts. Kanchipuram continues to be a great cultural center even today.

During the Pallava period, it was a university town. It was also a flourishing manufacturing center. The city had several guilds. The weavers, smiths, stonecutters, architects, betel growers, sculptors and various other artisans had their own guilds. These artists and craftsmen enjoyed great respect during the Pallava period. Many inscriptions mention the names of weavers, carpenters and painters who belonged to Kanchipuram.[9]

Mamallapuram

It was a thriving port city during the times of Pallava rulers. A *Vaishnava* poet by the name Tirumangai Alvar mentions in his works that it was a busy port and ships carried a variety of goods from this place to different destinations. He mentions elephant tusks and precious stones as a part of the cargo. Narasimhavarman I bore the title of *Mamalla* (which means a wrestler) hence the port got its name as Mamallapuram. The city is known for several structural temples, rock cut caves and monolithic shrines and huge panels and bas reliefs that are considered to be the greatest examples of Pallava art. This tradition of stone carving is still alive among the artists scattered in the area.

The shore temples of Mamallapuram situated at the high peak on the shore of Bay of Bengal have stood undamaged by the ravages of several sea storms including the tsunami of 2004.

This temple was built by Mamalla for the worship of Vishnu. His successor Narasimhavarman II added two shrines dedicated to Shiva. The city is famous for many other temples and sculpted shrines. Bhagiratha's penance is a huge rock with a vertical cliff sculpted and carved which depicts the descent of the Ganges. On a rainy day, one can see the water falling through a narrow pathway between two parts of the rock top. Below the rock panel is a tank in which the water collects. It gives the impression of the fall of the Ganges. There are five unfinished monolithic rock shrines, each shrine for one of the Pandavas and one for Draupadi.[10] Around the complex are carved statues of Vishnu, a lion, an elephant, King Narasimha and Nandi, the bull.

Made of stone and granite, the city has several temples of monolithic structures and rock cut cave temples. A few pictures of the same are at the end of the section.

Besides these temples and shrines, the city has several cave temples—the most famous ones are Mahishmardini cave temple, Trimurti cave temple and Varaha cave temple.

The 2004 tsunami showed the submerged parts of a temple with a sanctum sanctorum and pillars of halls. The sculpted figures of lion and elephants were also found.[11]

Mamallapuram also known as Mahabalipuram is a UNESCO World Heritage site. Vatapi (famously known as Badami), once the capital city of Chalukyas also came under the control of Narasimha Varman I. However, a decade later, the Chalukya king Vikramadithya gained control of the territory including Vatapi.

The city of Nagapattinam, a port city, was developed by the Pallavas to facilitate trade with China and other eastern island countries. In this city, at the request of the Chinese ruler, Rajasimha constructed a Buddhist *Vihara*. The Chinese traders who were mainly Buddhist needed a place for worship when they visited India.

Maravijayottunga Varman, a ruler from Sailendra dynasty of Malaysia[12] also made a request to the Pallavas for permission to build a *Vihara* there. His request was accepted. This sheds light on three things:

a. The naval trade between India, China and the Eastern Archipelago was flourishing.
b. The relations between these far off neighbors were friendly.
c. Religious toleration was the hallmark of the Southern kingdoms.

However with the change in the dynasties, the relations between kingdoms often changed. For example under the imperial Cholas, the same territory was conquered by Rajendra Chola I.

Religion and Culture of the People

The lithic inscriptions and the copper plate grants reveal the personal faith of the Pallava rulers. The first few rulers were worshippers of Vishnu. Skanda Varman, Vishnugopa Varman, Simha Varman I, Simha Varman II and Nandi Varmana I were all Vaishnava in their personal faith. Many of the subsequent rulers were worshippers of Shiva and they built several great temples dedicated to Shiva. People were free to follow any path of Vedic, Buddha or Jaina *Dharma*.

There was a great religious activity during Pallava rule. Temples, *agraharas* and *mathas* were constructed. Large donations were given to the learned people from Jaina and Hindu faiths. Land grants were given to build *Viharas* and *Chaityas* for Buddhists. According to some Sanskrit records, Buddhists received donations and endowments for Buddhist institutions. According to the Amaravati inscription, Simhavarman II visited a place sacred to

Buddhists. The inscription is incomplete but possibly, the king might have made a donation for the place.

Though the Pallava rulers were Hindu rulers; either followers of Shiva or Vishnu, or both, they allowed complete religious freedom to all faiths. Often the ministers of the kings were Jainas. Jaina schools and temples were patronized through land grants and other royal charters. This information is very well-documented in the inscriptions.

Pallavas promoted fine arts. Kings and princes were expected to be well-versed in various fields including music and literature. Pallava king Mahendra Varman was given the title Gunabhara (genius in many fields and storehouse of cultural qualities). According to A.K. Nilakantha Sastri, "He was a many sided genius—great alike in war and peace."

Society and Education

Society was organized according to *Varna Ashrama.*[13] There were four classes. Though the rulers traced their origin from the northern *Kshatriya* dynasties, their ministers were from all the other three classes. Artists, carpenters, architects, weavers and many other artisans belonging to the working class were honored. They even assumed the titles of their kings. They were organized into guilds. Many guilds ran schools and trained young apprentices in various skills. Some guilds were also custodians of temple money and maintained yearly accounts for them. The honor bestowed to the common manual workers disproves the myth that the lowest caste was oppressed.

Land grants were given to the Brahmins and other scholars to build temples and learning centers. There is no evidence in the literary records or the royal grant charters and inscriptions regarding the discrimination against any section of society.

Women enjoyed great position in the Pallava period. They participated in public affairs. Many land grants were made by queens and the wives of other administrators. Generous donations were made by wives of merchants. According to one inscription[14] Queen Charudevi made a large land grant for the construction of a Vishnu Temple at Dalura. She also mandated that the temple be exempt from all taxes and other dues.

Education and Literature

Pallava kings and their vassal chiefs gave land grants to build schools and universities known as *Agraharas*. Often these *Agraharas* bore the names of the person who gave the grant.

Land grants and generous donations were given to educational institutions like *Ghatikas* and *Mathas*. *Mathas* were residential schools for early education. *Ghatikas* were centers for higher education, similar to modern day colleges. Inscriptions also reveal the names of the scholars and teachers who not only gave donations but taught various subjects such as *Vedas*, *Vedangas*, *Itihasas*, *Puranas*, and various systems of philosophy. Bahur[15] inscription records a land grant given by King Nriptunga Varman for a school at Bahur (the word *Vidyasthana* is used for a school). The school was already well-established. Three villages were donated by the king. The learned men of the village controlled and maintained the institution. A wide variety of subjects were taught including subjects such as logic, *Mimansa*, *Puranas*, *Vedangas*, Sanskrit language, literature and grammar.

The most interesting aspects of the educational system were:

a. Pallava kings were involved in financing educational institutions,
b. The learned people in the villages were responsible for running these schools/universities.
c. Many schools were residential.
d. There was a system of examining the proficiency of the students.
e. Some of the great poets and writers were teachers of these schools.
f. In many cases, large halls and courtyards were added to the temple complex to serve the purpose of the schools.

The learned people composed the language of the inscriptions in very fine poetry. The meter and rhythm used by them compare well with the finest of Sanskrit poetry. Not all the inscriptions provide the names of the composers. But some do give their names, brief account of their families and their personal achievements.

Kanchipuram University was a famous university of Southern India, where not only the subjects of Pallava kingdom were students but many students came from far off places to study. One inscription mentions the Kadamba prince, Mayurasarman (around 345 A.D.) also came here to study. That shows that this was an old university. However, it reached the peak of its glory during the times of the Pallava kings. After the Cholas acquired the control of this territory, they continued to support the university.

Sanskrit inscriptions were a mirror of Sanskrit literature and there were hundreds of them from the Pallava period.

Dandin was the court poet of Narsimha Varman I and lived in Kanchipuram. He authored three books—*Kavyadarsa*, *Dasakumaracharitam*, and *Avantisundarikatha.*

Dasakumaracharitam is a story about ten princes. It relates to the vicissitudes of ten princes in their pursuit of love and royal power. In 1927, it was translated in English with the title, *The Adventures of the Ten Princes.*[16] *Kavyadarsa* was also translated in English with the title, *Mirror of Poetry.*

Another poet of the Pallava period was Bharavi who wrote the famous Sanskrit poem—*Kiratarjuniyam.* He was patronized by King Simhavisnu.

Several other great scholars of Pallava times are known for the Sanskrit and Tamil inscriptions they composed. Many of the Pallava kings were learned people and were fond of arts and music.

"Some of the Sanskrit epigraphs of the Pallava king Rajasimha (also known as Narsimha Varman II) found on the walls of the Kailashanatha temple of Kanchipuram are of great literary merit."[17]

King Mahendra Varman I was a great Sanskrit scholar. Besides composing the content of several inscriptions, he wrote two plays, *Mattavilasaprahasana*—a farcical play— and another play, *Bhagavadajjukkum.* He was the composer of the Tirucirapalli cave inscription.

In the words of T.N. Ramachandran,"He was an admirer of poets like Valmiki, Bharata and other *kavis* (poets) and moving as he did in a galaxy of poetical stars, he has given us in his many inscriptions and in two farces, that have luckily been discovered, his achievements in the field of poetry."[18]

The Sanskrit compositions on the copper plates, charters and other records are also of great merit. It was not customary to reveal the name of the composer of the record, yet here and there we find names such as Medhavi who wrote the Pallankovil epigraph and his descendent poet Parameshwera who composed the writing on the Udayendiram and Tandantottam plates.

Some other famous poets were Maheshvara Manodhira who wrote the Velurpalaiyam charter, Kumara who composed the inscription on the Cirur epigraph and Nagaya who composed the Bahur grant record.

Vaishnav saint Tirumangai Alvar wrote many poems and some of the stanzas are written on the walls of the Vaikunthaperumal temple.

Architectural Marvels

Dandin the court poet of the Pallava king wrote about an architect, Lalitalaya who could construct 96 types of temples and used six types of mechanical contrivances and had all the 36 qualities of an architect.

At Mamallapuram, some famous rock temples were constructed by Mahendra Varman I.

Some of the shore temples and similar structures went under water perhaps due to rising of the coastal waters. The tsunami (2004) revealed some of the underwater temple structures.[19]

During the reign of Mahendra Varman I, for the first time, a temple for Brahma, Vishnu and Shiva was constructed in the Tamil country.[20]

Kanchipuram the capital city of the Pallavas is considered to be one of the seven sacred sites of pilgrimage. During the Pallava period, several temples were constructed. Many of these temples had *Ghatikas*—the centers for higher studies. The town continued to flourish during the times of Cholas who were also fond of constructing temples and educational institutions.

The famous Kailashanatha temple was constructed by Nandi Varman Pallavamalla. It is the oldest and the grandest structure in the town. This temple dedicated to Shiva has 58 smaller shrines each with splendid carvings of various representations of Shiva. Recently discovered frescoes are considered the earliest frescoes in South India. A few pictures of the same are at the end of the section.

Another temple dedicated to Shiva is Ekambareshvara temple. This too was constructed under the Pallavas. Built during the reign of Nandi Varman II is the famous Vishnu temple known as the Vaikuntha Perumal temple. This temple has three shrines of Vishnu standing, sitting and reclining. The hall in the lower shrine has panels describing the genealogy, coronations, and conquests of the Pallava kings. Most of the temple architecture has a wealth of historical information. More details about art and architecture are given in the paragraphs under the heading Pallava cities.

Summary

The Pallava kings were learned people and many of them were great writers and scholars. They encouraged scholars and made land grants and donations to build several schools and colleges. The literary creativity of the period matches the phenomenal creativity in the field of architecture. The Pallava

kings were good administrators. In spite of continual warfare, the cultural activity continued without any trauma or disruption. The same is true about education, trade, manufacturing and agriculture.

According to historian C. Minakshi, "The working of the central government of the provinces and the districts resembled the one projected in the *Artha Sastra* conforming to the Maurya, Gupta and the Satvahana type, rather than those prevalent in the Tamil country."[21] On the basis of Sanskrit inscriptions, Chithra Madhavan emphasizes "the linkage of Tamil Nadu with the pan Indian heritage." She also states "how Sanskrit inscriptions place Tamil Nadu in the mainstream of historical and cultural inheritance."[22]

Concepts to Understand

1. The kings were supposed to rule by the established rules of political *Dharma.*
2. The kings were expected to have certain qualities that would help them discharge their duties. Those who cared to respect their righteous duties bore titles as *Dharamadhiraja, dharamapalakas* etc.
3. Most of the southern dynasties including the Pallavas traced their origin to north Indian dynasties. This indicates that the Vedic kingdoms and the southern kingdoms had a common origin. These were not two different racial groups. The southern kingdoms were not slaves of the northern invaders. Conquered people and victims of the invading forces rarely try to trace their descent from invading dynasties.
4. Women enjoyed a respected position in society.
5. Workers and artisans of all categories enjoyed an honored place in society.
6. Pallava period is known for all-round cultural activity and the construction of several architectural marvels. Today, these monuments and temples attract tourists from all over the world.

Questions

1. What was the pattern of education in the Pallava kingdom? How were educational institutes supported?
2. How were women treated in society? Compare their position with the status of women in any one of the European countries (during the same time frame) that you have studied.

3. Why were port cities important for the kingdom? Discuss one such port city and explain the trading activity of the city.
4. What were the major items that were exported by the kingdom?
5. What is the difference between coastal trade and deep ocean trade? Why were these important to the people of the kingdom?
6. Explain the qualities the kings were expected to have. Did European people expect the same qualities from their kings?
7. Describe the administration of the provinces and smaller units under the provinces?
8. What were the sources of revenue for the kingdom?

Enrichment Activity

1. The southern kingdoms had a huge navy whereas the northern empires did not have naval power. Study the map of Chandragupta's empire and the map of the Pallava kingdom, why was naval power important for the latter?

Critical Thinking Activity

1. To construct the narrative about the Pallava dynasty, the chapter uses a large number of copper plate records, charters and inscriptions on pillars, rocks and temple architecture. What are the other sources of information used in this chapter?

Endnotes

[1] Sources for this part of the genealogy are: *Lokavibhaga*, a Jaina manuscript and Prakrit charters and copper plate charters in Sanskrit. Ganga charters also confirm some of these dates.
Corroborative evidence comes from the Allahabad inscription of Samudragupta of Gupta dynasty. According to the inscription Samudragupta marched against Prince Vishnugopa l of Kanchi but he was unsuccessful against the Pallava ruler.

[2] Collateral branch means the rulers are descendents of a sibling of a previous ruler.

[3] The age of *Kaliyuga* started some 5,111 years ago. Kali means darkness. Here it means the age when most people do not follow the laws of *Dharma*.

[4] Source: *South India Inscriptions*, vol. I

[5] Udayendiram copper plates and Tandantottam copper plates of Nandi Varman eloquently praise this king for his commitment to these duties – quoted in *History and Culture of Tamil Nadu* by Chithra Madhavan

[6] Source: Kasakudi plates and Pattattalmangalam plates

[7] All of these sites are in the modern day state of Andhra Pradesh. Province of Vengo is in the West Godavari district, Karma is in the district of Guntur and Munda is in the Nellore district.

[8] Hirahadagalli plates and Udayendiram plates are from that early period

[9] Leiden Plates

[10] Check section 2, chapter 14, to refresh your memory about the story of Pandavas and Draupadi.

[11] Check section 2, chapter 7, for more details about the submerged cities of India.

[12] Katah is the ancient name of Malaysia

[13] Check section 2, chapter 13 for details

[14] Source: Gunapadeya plates

[15] Bahur is near modern day city of Pondicherry, Tamil Nadu

[16] In 2005, Clay Sanskrit Library published a translation of *Dasakumaracharitam* in English under the title, 'What Ten Young Men Did'. It is translated by Isabelle Onians

[17] Quote from the book, *History and Culture of Tamil Nadu* by Chitra Madhavan

[18] Source: *Royal Artist, Mahendra Varman* l by T.N. Ramachandran

[19] Check section 2, chapter 7 for more about the submerged cities and temples in Mahabalipuram – another name for Mamallapuram.

[20] Source: Mandagapattu inscription.

[21] Source: *Administration and Social Life Under the Pallavas* by C. Minakshi

[22] Source: *History and Culture of Tamil Nadu* by Chithra Madhavan

Chapter 37

The Rashtrakuta Dynasty
(753 A.D.-973 A.D.)

This chapter will focus on the rise of the Rashtrakuta Empire after the decline of the Chalukyas of Badami. The chapter will discuss the detailed narrative of the reign of various kings and their achievements.

Sources of Rashtrakuta History

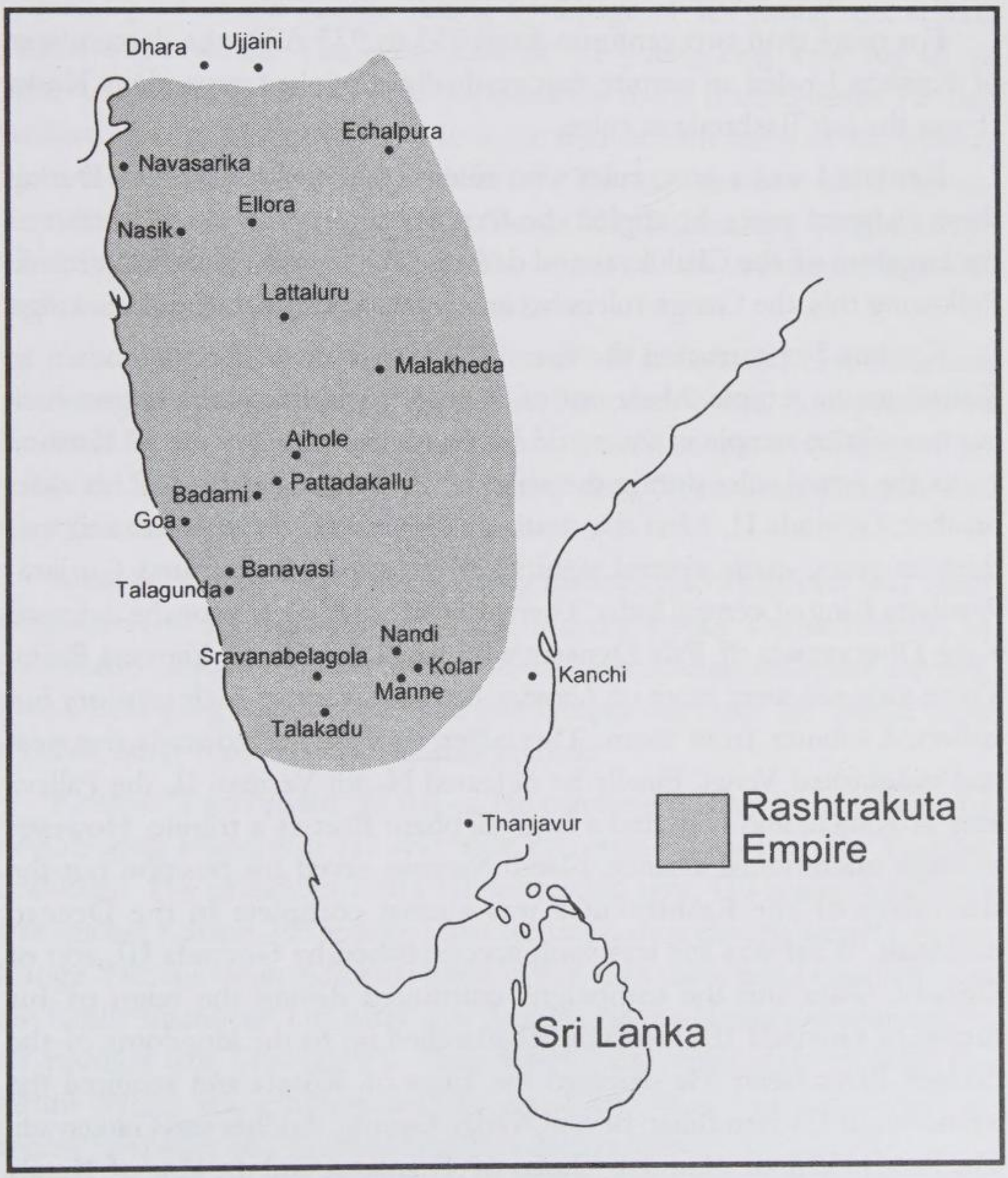
The main sources of information about the Rashtrakutas are the inscriptions written in Sanskrit and Kannad languages and stone records. There are literary sources as well. Kannad works such as *Kavirajamarga* and Sanskrit writings by many scholars such as Gunabhadra, Jinasena, Somadeva and Rajashekhara provide a great deal of information of historical significance. The writings of foreign travelers provide corroborative evidence. Many Arab travelers also wrote about the times of Rashtrakutas. The accounts by Suleiman and Ibn Haukal provide important information.

Important inscriptions:

- Tivarkhed and Multhai inscription in Amravathi district in Maharashtra,
- Records of Amoghvarsha,
- Ellora records,
- Sanjan plates and Samangad plates,
- Poona plates and Alas plates
- Pimpari grant records,
- Karhad plates,
- Navsari and Baroda plates

The Rashtrakuta Kings

The Rashtrakutas ruled over a small state in the North West of Karnataka. Most of this territory is now a part of the state of Maharashtra. Several different families bearing the name Rashtrakuta ruled over the districts of Amravathi (in Maharashtra) and Malakhed and Reva (now in Madhya Pradesh). Each family had its own emblem. For example, the Rashtrakutas of Amravathi and Malakhed had Garuda as their royal insignia. The inscriptions and other written records of this period are in Sanskrit and Kannad. Since most of the people of this area used to speak Kannad, scholars believe that the Rashtrakutas were of Karnataka origin. The map of the Rashtrakua Empire is given below.



Around 8th century A.D. they were engaged in various skirmishes with the neighboring Pratiharas of Kanauj. But their main battles were against the Chalukyas of Badami. This tripartite rivalry continued for many generations.

After several small battles, finally the Rashtrakutas under the leadership of Dantidurga won a decisive victory over the Chalukyas in 753 A.D. They were able to imprison the Chalukyan crown prince Kirthi Varman. Ellora records not only provide an account of this victory but also describe the genealogy of the first three rulers.[1] Dantidurga also defeated his rivals, Harichandra of Pratihara dynasty in the north.[2]

It seems that Karka I was the founder of this dynasty. Dantidurga was the grandson of Karka I. He ruled from 753-756 A.D.

For more than two centuries from 753 to 973 A.D., the descendents of Krishna I ruled an empire that gradually continued expanding. Karka II was the last Rashtrakuta ruler.

Krishna I was a great ruler who ruled from 756 to 774 A.D. During these eighteen years, he tripled the territory under his rule. He annexed the kingdom of the Chalukyas and defeated the Ganga ruler Shripurusha. Following this, the Ganga rulers became vassals of the Rashtrakuta kings.

Krishna I constructed the famous Ellora rock cut temple known as Kailashanatha temple. Made out of a single rock, this is the largest rock cut monolithic temple in the world.[3] Dhruva the younger son of Krishna I was the actual ruler during the reign of his father and that of his elder brother, Govinda II. After the death of Govinda II, in his short reign of thirteen years, made several significant victories. He defeated Gurjara-Pratihara King of central India. Thereafter, in quick succession, he defeated King Dharampala of Pala Dynasty who ruled the Ganga Yamuna Basin. These victories were more of *Digvijay*, he did not annex their territory but collected tributes from them. Thereafter, he marched towards the west and vanquished Vengi. Finally he defeated Nandi Varman II, the Pallava king at Kanchi and collected a large elephant fleet as a tribute. However through matrimonial alliance, Nandi Varman saved his position but the suzerainty of the Rashtrakutas was almost complete in the Deccan peninsula. What was left was soon accomplished by Govinda III, son of Dhruva. Wars and the campaigns continued during the reign of his successor Govinda III. Govinda III marched up to the kingdoms of the Ganges River basin. He defeated the kings of Kosala and acquired the territories of Eastern Bihar, Bengal, Vengi, Gujarat, Andhra and Gangavadi. The Pandya king of Madurai, Cholas of Thanjavur and the king of Kerala

agreed to pay tribute to Govinda III. The king of Ceylon sent him two statues—one of himself and the other of his minister. This token gift assured Govinda that Ceylon had accepted his overlordship. Thus, during the reign of Govinda III, the Rashtrakuta Empire expanded from the river Ganges in the north to Ceylon in the South. Never before had the north and the south come under one dynasty.

The last record that Govinda III left is dated 813 A.D. Sanjan plate records contains details about his northern expedition and the birth of his son who succeeded him. His name was Amoghavarsha I.

The Manne record also corroborates these facts. Amoghavarsha was just a 14 year old boy when he ascended the throne in 814 A.D. He was guided by his cousin Karka. Taking advantage of his young age, several feudatories revolted. The early years of the young king were full of all kinds of revolts. He managed to suppress the revolt from Gujarat. He also realized that his best policy was to make friends with some of the powers his father and grandfather had defeated. Through matrimonial relations, he cultivated the friendship of the Ganga, the Pallava, the Vengi and the Chalukya (Eastern branch) kings. The rulers of the northern kingdoms such as Magadha and Anga respected him.

Amoghavarsha was a scholar himself. It is believed that he wrote *Prashanottara Rathanamala* in Sanskrit and another book, *Kavirajamarga* in Kannad. He was a deeply religious man and cared for the well-being of his subjects. Several scholars such as Mahaveera, Veerasena, Jinasena and Gunabhadra were his contemporaries.

Most of the information regarding his conciliatory efforts and other achievements are available from the literary works. Other sources of information about this king are the several inscriptions and plate records, found belonging to his reign. The most important ones are Sanjan plate records, Surat records and Bagumra records.

Krishna II succeeded his father. He continued facing threats from the neighboring kingdoms. He was able to retain control of the Gurjara Pratiharas. His grandson Indra III succeeded him. His major campaign was against Kanauj. He annexed that territory; thus gaining control of the Ganga-Yamuna basin. After his death in 929 A.D. there was a feud between the family members. His elder son Amoghavarsha II was overthrown by his younger son, Govinda IV. Then Govinda IV was removed from the throne by his uncle Amoghavarsha III. These family wars gave rise to several uprisings and many feudatories regained their independence.

The situation became normal when Krishna III became the next king in 939 A.D. After consolidating his position among his feudatories and the far away provinces, he defeated the Cholas at Thanjavur and Kanchi. In these campaigns, the Ganga ruler Bethuga II helped him. Returning the favor, Krishna III granted him some of his territories. Similarly, he subdued the Pandyas and the Keralas. He received tributes from the king of Ceylon. His northernmost boundaries extended to the modern day state of Madhya Pradesh.[4]

Krishna III was the last powerful king of this dynasty. During the reign of the succeeding kings, the empire began to shrink. Karka II was the last Rashtrakuta king. The Paramara kings had attacked the Rashtrakuta capital, Malakhed. Taila II was in charge of a district in Kalyana, a feudatory of the Rashtrakutas. Taila took advantage of the adverse circumstances faced by Karka II. Taila defeated Karka II and thus established himself as the king of the remaining Rashtrakuta territory. He became the founder of the new dynasty known as the Chalukyas of Kalyana.

Based on several inscriptions, many scholars believe that Taila II was a descendent of Bhima of the 8th century. Kalyana belonged to the Chalukya dynasty that ruled from Badami. In 734-744 A.D., Chalukya king Vikramaditya II of Badami ruled Kalyana. Bhima was his younger brother and he was the governor of the province of Kalyana.

Except the Ganga ruler, rulers of many other feudatories declared themselves independent. By 972 A.D. the last of the Rashtrakuta kings died, thus ending one of the most glorious periods of Karnataka history. Many scholars believe that this was the period of imperial Karnataka.

Internecine warfare between Paramaras of Malva, Cholas of Thanjavur and Gangas of Gangavadi continued all through this period. The matter worsened by the fact that the Arab invaders were intruding persistently from the Arabian Sea.

Administration

During the Rashtrakuta period, kingship was hereditary and the same applied to the kingship of the feudatories. Normally, the king would appoint the crown prince who was supposed to be the next king. The eldest and sometimes the ablest son inherited the throne.

The king was assisted by his ministers. From the inscriptions, not much information is available about the number of ministers or their responsibilities. There was the post of a minister for foreign affairs[5] who

was in charge of war, peace and other related matters. Known as the *Mahasandhivigrahi*, he also maintained official records. Holding the ceremonial post of being the commander in chief, he carried the five musical instruments and the royal insignia. The ministers were supposed to be well-versed in matters relating to political science and running the administration.[6]

According to the inscriptions, one of the feudatories was given the post of the prime minister. For example, for some time, the feudatory of Gujarat was appointed to this post. It is likely that the Rashtrakuta kings held this post too, though the reference to this is not available in the inscriptions. The empire was divided into provinces known as *Mandala* or *Rashtras*. Each *Mandala* was governed by a *Rashtrapati* (governor). According to the Sanjan records, Amoghavarsha I had 16 provinces. Often, blood relatives were appointed as governors. Dhruva who later became a king was the governor of Gujarat *Rashtra* during his father's time.

Each *Rashtra* was further divided into districts known as *Vaishyas*. It is interesting to know that women also held important posts in the administration. A daughter of Amoghavarsha I looked after Edathore *Vaishya*. *Vaishyas* were divided in groups of *gramas* (villages). At the village level, the *gramas* were managed by elders and a democratically elected assembly.

The village headman was known as *gramapati* and had local militia under him. He was also responsible for administering the revenue. He had clerical staff and accountants to assist him.

There was an elected assembly of *Mahajanas*. This assembly looked after the *Agraharas*.

Besides the assemblies, at each level (*rashtra, vaishya* and *grama*) there were councils as well. The system of organizing councils was not new. According to Altekar, "These bodies were not innovations of the Rashtrakutas. They existed even earlier."[7]

Thus we see that the administrative pattern and the machinery was almost the same during the rule of most of the dynasties—northern and southern alike.

Military

Rashtrakutas were a powerful dynasty with a large militia. There was a standing army at the capital city of Malakhed. Malakhed must be like a modern day cantonment.[8] Various Arab travelers have provided accounts

of the military might of the Rashtrakutas. According to Al Masudi, "His horses and elephants are innumerable but his troops are mostly infantry."

According to Suleiman, another Arab traveler (851 A.D.) the Rashtrakuta Empire under Amoghavarsha I was one of the four largest empires of the world at that time.

Social and Economic Conditions

Society was more or less divided along the four *Varnas*. Women were respected and were often in charge of *Agraharas* and administrative districts. They participated in public life and in their own right gave monetary help to educational institutions and the learned men.

Agriculture was the mainstay of the economy. People were generally prosperous. Their life was not disrupted by the wars fought by various kings. Land revenue was the main source of royal income. Booty from the conquered land was also added to the royal treasury. Land revenue was collected three times a year. Besides land revenue, there were excise taxes on several products. There were taxes on various professions and excises on goods leaving the country. Both inland and naval trade flourished during the period.

Rashtrakutas issued gold coins called *Suvarna*. Of smaller denomination were silver coins and gold coins of lesser weight.

Education

Early education was imparted in the schools attached to the temples and *Mathas*. As in the case of *Agraharas*, *Mathas* were also given land grants and other help for maintenance. *Agraharas* were centers for higher learning. Some of the famous *Agraharas* were in Salotgi, Kalasa, Belur, Naragunda and Shirur. Kalasa *Agrahara* (university) was a residential university. Here, subjects such as grammar, jurisprudence, *Neeti Sastra* (political science), languages and other sciences were taught. The student body was so large that the center had 27 boarding houses. Most *Agraharas* were residential learning centers. Merchant's guilds partially funded and maintained these places.

Religion and Literature

Vedic Dharma was practiced during the reign of the Rashtrakutas.. The royal emblem was Garuda—considered to be the ride of Vishnu. The kings thus followed Vedic practices and performed *Yajnas*. Most of the inscriptions begin with an invocation to Vishnu or Shiva. Amoghavarsha I

adopted the title Veeranarayana[9] and the Sanjan plate record of his times has a prayer to Veeranarayana.

Krishna I built the famous Ellora[10] temple. This chariot shaped temple is made out of a single rock. As mentioned earlier, it is the largest single rock structure in the world. The temple has friezes depicting themes from *Ramayana*. Through elaborate carvings and sculpture, it narrates the story of Ravana, king of Sri Lanka trying to carry Mount Kailash (the abode of Lord Shiva) in the Himalayas to Sri Lanka. Shiva and Vishnu were worshipped in most of the temples, while at some other temples the Sun was worshipped too.

Buddhism was also patronized by these kings. Buddhist *Viharas* were given royal grants. But Buddhism was not very popular with the masses. Jainism was a popular religion. Several prominent Jaina writers tried to propagate their message both in Sanskrit and Kannad language. Royal grants were also given to maintain their learning centers. On the coastal Konkan, some Muslim families also lived. According to Al Masudi, the Rashtrakuta rulers respected the Muslims. Altekar aptly points out, "Wide and sympathetic toleration was the general characteristic of this age."[11]

Literature

The period of Rashtrakuta reign witnessed great literary activity. There were a number of scholars who wrote on a variety of subjects. Many of these scholars not only wrote books but also composed inscriptions on plates and stone pillars. Some of the great scholars are mentioned here:

Trivikrama wrote a book called *Nalachampu*. He also wrote the inscription on the Bagumra plate during the reign of Indra III.

During the reign of Krishna III, Halayudha wrote *Kavirahasya* which deals with the list of verbs with their meanings in verse. He also wrote *Mritasanjivani*, a commentary on Pingala's work *Chhanda Sutra*.

Somadevasuri wrote *Neetivakyamrita*—a commentary on Chanakya's *Artha Sastra*.

Pampapada and Sureshvara wrote many commentaries in Sanskrit. The most famous of these commentaries was the one on *Yajnyavalkyasmriti*.

Jaina philosophers and writers were equally patronized by the royalty. Some of them worked as teachers of the princes. Veerasena and Jinasena jointly wrote two commentaries—*Dhavala* and *Jayadhavala*. Similarly, *Adi Purana* begun to be composed by Jinasena was finished by his disciple Gunabhadra. The completed work was titled *Uttarapurana*. Jinasena also wrote *Harivamshapurana*. Several works were written in Prakrit and Kannad.

Amoghavarsha I himself was a writer. Two works are attributed to him *Prashnottara Ratnamala* in Sanskrit and *Kavirajamarga* in Kannad. *Kavirajamarga* is a Kannad version of Dandin's *Kavyadarsha*, which was written in Sanskrit.

Kannad writers flourished during this period. Jaina scholars used this language to reach the Kannad speaking masses to popularize their religion. Many inscriptions were also written in Kannad language. The great poets and writers of this period not only wrote books but also helped write inscriptions and records.

Many great works were on subjects other than religion and languages. Mahaveera wrote *Ganithasarasangraha*—a work on mathematics and *Shaktayana Amoghavritti*. The latter work is about Sanskrit grammar used at that time in schools.

Ponna was a renowned poet during the reign of Krishna II. He is credited with four works. Pampa was another great writer of the time. He was a warrior by profession but was also a poet. He wrote *Adi Purana* and *Vikramarjunavijaya*. The latter work is the story of Arjuna of *Mahabharata* period.

Architectural Marvels

Constructed by Krishna I, Ellora temple is the most impressive structure made during the Rashtrakuta period. Ellora town was situated on an important trade route between Ujjain in modern Madhya Pradesh, and the west coast. For nearly half a millennia, the rich trade yielded revenue for sustaining the temple construction. Chalukyas and the Rashtrakutas were the main contributors to this massive architectural work.

Ellora town has 34 caves hewn from a two kilometer long rock. It is a splendid example of rock architecture not only because of its massiveness but also for the finely chiseled sculptures, panels, friezes and motifs adorning the walls, entrances and hallways. Cave 29 is the Dhumer Lena temple and cave 15 has the Dashavatara temple. The Dashavatara temple depicts the ten incarnations of Vishnu. Other important structures are cave 21, the Rameshwera temple and cave 14, Durga temple. This temple shows Durga (*Devi* representing power and valor) slaying the demon.

These structures were built during the 7th to 9th century.

The most awe inspiring structure is the Kailash temple. Carved out of a huge rocky cliff face, the huge complex spans an area of 81 meters by 47 meters. The artists began chiseling from the top working down to the bottom. Altogether, some 3 million cubic feet of rock was hewn and

sculpted. The main temple structure depicts the sacred mountain abode of Shiva. The tower rises about 107 feet and was covered by white plaster to give the impression of the snowy mountains of Himalayas. That plaster coating has withered by now.

The roof of the assembly hall is made in the shape of concentric rings of lotus flowers with four lions in the middle. The base of the temple has finely carved rows of elephants holding lotus flowers in their trunks. These sculpted elephants support the rest of the structure. Though the main temple is dedicated to Shiva, there are other themes depicted on the panels of the temples. For example, the south walls have scenes from the *Ramayana* while the northern walls have scenes from the *Mahabharata* and the life story of Krishna.

The chariot shaped temple shows Ravana, the King of Lanka trying to shake mount Kailash[12] in an effort to take Shiva and Parvati to his island kingdom of Sri Lanka.

The huge courtyard has two life-size elephants' sculptures. The Nandi Pavilion shows Nandi bull (Shiva's ride). On both sides of the pavilion there are two large pillars, about 56 feet high.

According to Percy Brown, "The temple of Kailash at Ellora is not only the most stupendous single work of art executed in India, but as an example of rock architecture, it is unrivalled."

Ellora attracts travelers from all over the world.[13]

Elephanta caves originally known as Gharapuri caves are located on the eastern shore of Mumbai. These caves cut into the cliff high above the water. Visitors come here by boat from Mumbai. As they enter from the northern entrance they climb 125 steps to reach the temple.

This leads to the hall measuring 40 feet by 40 feet. At the center of this hall is *Maheshmurti*—a huge three headed statue of Shiva. It is also famous as Trimurti. The three faces show Shiva in three manifestations. The central face of Shiva has a high crown and a serene, introspective expression. It is Shiva the preserver of the universe. The western face shows Shiva as the creator—gentle, benevolent and graceful. The eastern face has a hooked nose, a fierce expression and serpents around the neck. This is the face of Shiva as the destroyer. The adjacent temples show Shiva in his Ardhnarishwara[14] aspect, supporting the Ganges falling on his head. The western entrance has the temple depicting the marriage of Shiva and Parvati. The temple on the eastern entrance shows Shiva and Parvati playing dice while King Ravana of Sri Lanka is trying to shake the mountain in an

effort to carry the mountain to Sri Lanka. These architectural marvels have been praised by several art historians. According to Percy Brown, these temples are "the creation of a genius."[15]

This temple complex has been designated a world heritage site by UNESCO.

Several temples at Aihole, Mallikarjuna temple at Ron, Andhakeshwera temple at Huli and Someshwera temple at Sogal are all assigned to the Rashtrakuta period. The main temple structure has the sanctum sanctorum at the center. At the top of the pillars and parapets are the *kalasha* motifs. These temples are made of sandstone.

Kailash temple and many other adjacent cave temples of Rashtrakuta period are also world heritage sites under UNESCO.

Several Jaina temples were also built during this period. The most important one is the Parameshwera temple at Konnur. This temple was built during the reign of Amoghavarsha I.

Summary

The Rashtrakuta empire extended from the Vindhya Mountains to Mysore. At its height it included what are the modern day states of Maharashtra, Gujarat and Karnataka, parts of Tamil Nadu, Madhya Pradesh, Andhra Pradesh and Kerala. Rashtrakuta Empire in the words of Al Masudi was considered to be one of the four largest empires of the world at that time. It was the glorious period of imperial Karnataka. During this period, great poets and writers created works of literature in Sanskrit and Kannad. Magnificent temples were built at Ellora, Sogal, Konnur, Elephanta Islands and in many other parts of the empire. As in the times of previously discussed dynasties, this too was the period of religious toleration.

Concepts to Understand

1. Eighth century A.D. to 10th century A.D. was a period when all three religions flourished under the Rashtrakuta rulers.
2. The empire was divided into several provinces under the governors. Each of the provinces was further divided in districts and then the districts were divided into villages.
3. Trade, manufacturing, crafts and agriculture prospered during this period. Rich revenue from various sources supported the construction of monumental temples.
4. Imperial Karnataka exported silks, cotton, spices, and betel nuts, carved ivory works, sandalwood goods and swords.

5. Most of the information about this dynasty comes from inscriptions, plate records, land grant records, literary works and accounts of the foreign visitors.
6. Women took prominent part in administrative work. Inscriptions show that Amoghavarsha's daughter was in charge of one district. Many land grants were made by women of the royal family.
7. Feudatories such as Ganga rulers were loyal to the Rashtrakuta king in their various battles against the Cholas, and Chalukyas of Kalyana. At the same time, some feudatories revolted under weaker kings. The empire expanded to such an extent that eventually the size itself became the cause of the decline of Rashtrakuta dynasty.

Questions

1. Why are the Rashtrakuta monuments considered world heritage sites? Why are they placed under the care of UNESCO?
2. Describe the difficulties encountered by artisans in making single rock structures of the size of Kailash Temple?
3. What types of jobs were created by such architectural works?
4. Fill in the important sites and towns in a blank map of southern India.
5. What were the items of trade from Karnataka at that time?
6. Which countries participated in the flourishing trade during the Rashtrakuta period?
7. Name some important port towns during the reign of the Rashtrakutas?

Enrichment Activity

1. Study the history of one European country during the 8th to 10th century A.D. and then compare it with the Rashtrakuta Empire.

Critical Thinking Activity

1. Discuss some of the important contributions of the Rashtrakutas in the fields of arts and architecture.

Endnotes

[1] This victory is also corroborated by description given on Samangad plate record by Dantidurga.

[2] Check section 3, chapter 24 about the Pratihara rulers

[3] Alas plate of 770 has record of this achievement.

[4] Source: Juro record and Nilkanthi record in modern state of Madhya Pradesh

[5] Source: Salotgi records give the name of one such minister at the time of Krishna III. Kalasa record indicates that during the reign of Govinda IV, Visottara was *Dandanayaka*. Many such records also describe the privileges of these ministers.

[6] Source: Salotgi records

[7] Source: *State and government in Ancient India*, by A.S. Altekar

[8] Ibid.

[9] Narayana is another name for Vishnu

[10] Ellora is in the present day state of Maharashtra. During the Rashtrakuta period it was the northern province of their empire.

[11] Quoted by S.U. Kamath – *History of Karnataka*

[12] Mount Kailash is in the Himalayas.

[13] Check end of section 3 for the pictures of Kailash Temple and section 2, chapter 11 for the statue of Trimurti

[14] *Ardhanarishwara* is a statue of Shiva symbolizing both male and female elements of the Divine.

[15] Source: *Indian Architecture* by Percy Brown

Chapter 38

The Imperial Cholas and Pandyas

This chapter will focus on the first 170 years of the reign of Chola kings and how they created a vast empire from the beginning of 9th century onwards. It will also discuss their achievements in various fields.

Early Cholas ruled Tamil Nadu from 2nd century A.D. onwards. However they were reduced to a small power as the Pallavas, Pandyas and the Rashtrakutas became powerful empires. By the 8th century A.D. they again ascended into an unchallenged position in the south. Ruling from their capital at Tanjvar (also known as Thanjavur or Tanjore), they even attacked Sri Lanka and kept the Sri Lankan kingdom as their feudatory.

The reign of the Chola dynasty continued up to the thirteenth century. Genealogy of the important rulers from the ninth to the middle of 11th century:

Vijayalya 850-871 A.D.
|
Aditya I 871-907 A.D.
|
Parantaka I 907-955 A.D.
|
Parantaka II (also known as Sunder Chola), 957-973 A.D.
|
Uttam Chola, (Cousin of Sunder Chola), 970-985 A.D.
|
Rajaraja I, (Son of Sunder Chola and nephew of Uttam Chola), 985-1016 A.D.
|
Rajendra I, 1012-1044 A.D.

The *Colavamsacaritram* (author unknown) is more or less a dynastic history of the Cholas. It contains the description of 16 Chola kings of the Solar dynasty who ruled the kingdom with its capital at Thanjavur.

The *Brhadisvarmahatmya* (*Sthala Purana*) in Sanskrit written during a later period also describes the history of the sixteen Chola kings and their capital Thanjavur thus corroborating the fact that the Cholas ruled from Thanjavur.

Most of the information about these kings comes from various types of inscriptions. Copper plate records, various land grants, charters and inscriptions on the sculpted walls of the rock cut and structural temples reveal important historical facts about these kings. Taking into account the inscriptional evidence as well as literary accounts, it appears that the Chola king Vijayalaya captured the city of Thanjavur in the 9th century and made it the capital of his kingdom. The capital city of his predecessors was Uraiyur on the banks of river Kaveri.[1]

Aditya I defeated the Pallava King Aparajito and annexed the Pallava territory. Aditya also defeated the Pandya king Viranarayana. His friendship with the Chera king and the Ganga king helped him consolidate his position.

He is praised in the Tiruvalangadu charter of 922 A.D. His son, Parantaka I succeeded him and ruled for about 50 years.

The Velanjeri copper plate inscription states that he was loved by his subjects. They considered him their father. Leiden Plates also refer to the king as a follower of *Dharma* and ruling according to *Dharma Sastras*. After his death, there was a period of confusion and weakness. The Chola kingdom was reduced to a small principality. Two sons of Parantaka I ruled for a short while. Parantaka II (Sunder Chola) became the next king and ruled from 957 to 973 A.D. During the reign of Sunder Chola, some territories in the north were recovered. The kingdom became more stable. Though he tried to gain control of Sri Lanka, he was unsuccessful. He defeated Vira Pandya of Madurai. In the second battle, Vira Pandya was killed and his territory was annexed by the Cholas. Uttam Chola succeeded his brother and ruled for a short period of time. His nephew Rajaraja soon overthrew Uttam Chola and became the king.

The real power of the imperial Cholas began with the reign of Rajaraja I. Though he was the eldest son of Parantaka II, he did not succeed his father. However, in an elaborate ceremony, his uncle declared him the heir apparent. During his reign, the construction of the Shiva temple in Thanjavur began.[2]

The Karandai copper plate inscriptions mention the conquest of Kerala by Parantaka I and Rajaraja I. The same plates also mention his conquest over the Utkal region, modern day Odisha. Rajaraja I appointed his son Rajendra I his heir apparent.

Rajendra I reigned from 1014 to 1044 A.D.

The Chola kings assumed titles such as Rajakesari and Parakesari. The tiger was the royal insignia of the early Cholas of the Sangam Period. The later Cholas also adopted the tiger as their royal emblem. This insignia appeared on the coins and seals of the copper plate grants. Cholas followed a hereditary system of succession where the eldest son succeeded the father. There were exceptions here and there. When in the 10th century A.D. Parantaka Chola II (also known as Sunder Chola) died, his son Rajaraja I did not succeed, instead his uncle Uttam Chola became the king

The Chola kings were followers of *Vedic Dharma* and used to perform *Yajna* ceremonies. They were followers of either Vishnu or Shiva but the subjects and the members of the royal family were free to be followers of Vishnu, Shiva or Buddha. The port city Nagapattinam was developed by the Pallavas to facilitate trade with China and other eastern island countries. At this city, a Buddhist *Vihara* and monastery were built for the convenience of the Buddhist traders and pilgrims from China and other neighboring countries, at the request of a Sailendra king of Malaysia.

Thanjavur continued to be the capital city till Rajendra I shifted the capital to Gangaikondacholapuram. Located in the fertile region of Kaveri River and its tributaries, Thanjavur was the seat of Tamil culture. In the word Tiruvorriyur *Tiru* means sacred and *vaiyaru/vorriyur* means land of the five rivers.

Many illustrious poets, musicians and writers belonged to this historic region. This city housed the school for the study of Panini's grammar. Several other cities and ports such as Chidambaram and Nagapattinam were part of the Chola Empire.

Administration

The kings were assisted by *Amatyas* and the *Mantri Mandala* (ministerial council). Some of the famous ministers of various kings are mentioned in the inscriptions. They were also assisted by secretaries who recorded the proceedings of the royal meetings and the royal decisions. There was a minister of war, peace and alliances with the title *Sandhivigraha*. Various wings of the military were under superintendents known as *adhyakshas*; for example, *Gajadhyaksha* was in charge of the elephants.

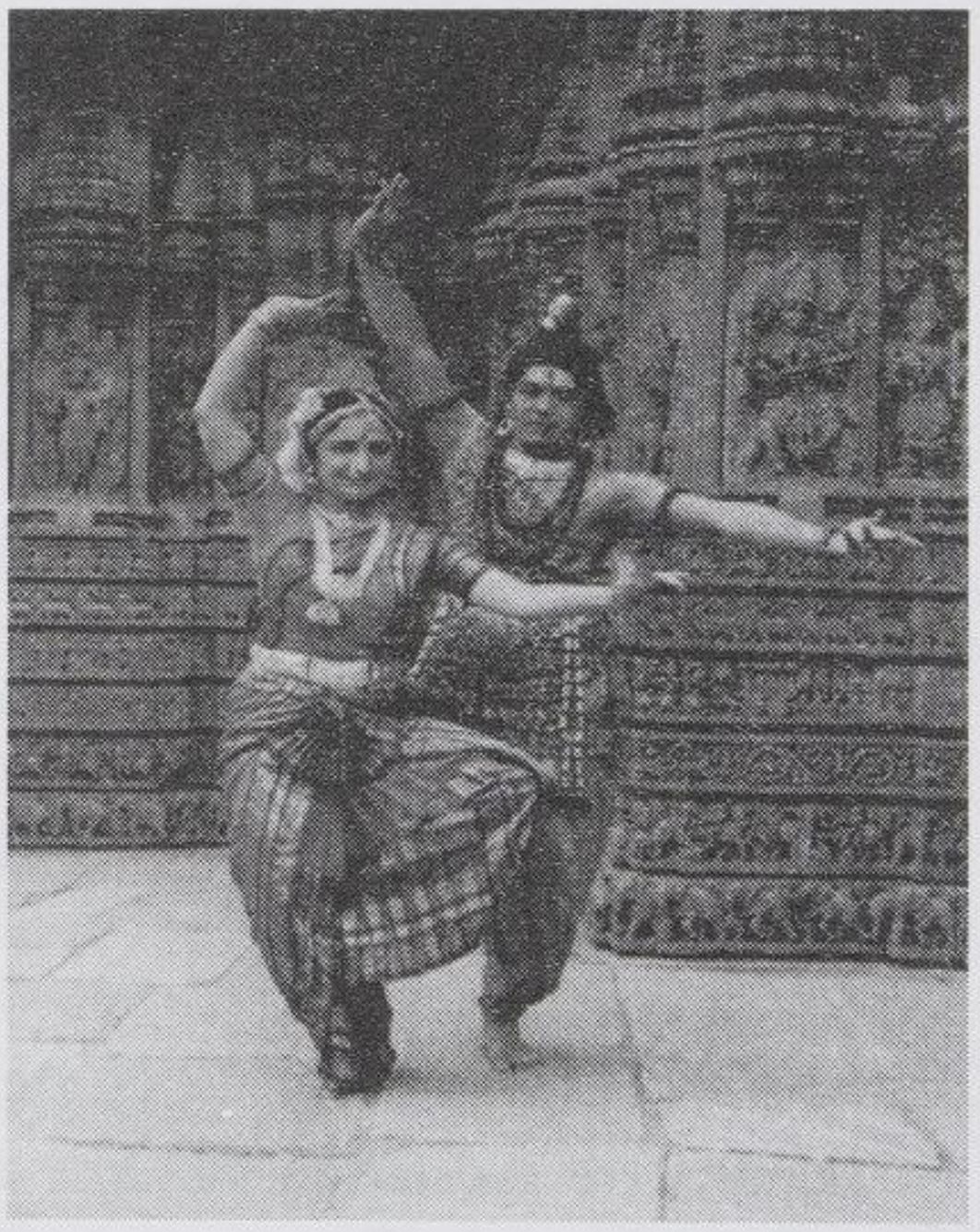
Many inscriptions also tell us about the campaigns and victories of the Cholas. These inscriptions are a good source for identifying some of the countries they conquered.

During the Chola period, many cities flourished because of manufacturing and trade. The port towns became prosperous due to foreign trade. Many port towns were also temple towns. They attracted tourists from far away places. Fishing communities lived all along the eastern and western coast.

In the district of Nagapattinam at Poompuhar, National Institute of Ocean Technology (NIOT) carried out a site scan after the tsunami of 2004. The scan revealed the ruins of the ancient Chola port city, lying at a depth of eight meters under the sea. These architectural structures are huge. They're also covered with bio-fouling. Only after the bio-fouling is removed carefully, will the NIOT and the ASI know if the structures are parts of Buddhist *Viharas*, temples or a row of houses.[3]

Art and Architecture

The Chola period witnessed the building of thousands of temples that are considered architectural marvels. They built magnificent temples and donated land and enormous wealth to them. Many of these sculptures are preserved in museums. In the ninth century, Rajaraja Chola built the famous Shiva temple at Chidambaram in Thanjavur district, known as the Chidambaram temple. It is a marvel of architecture with sculpted dance styles. One hundred and eight dancing poses are depicted here. It is dedicated to Nataraja, the dancing Shiva. The temple was finished by Rajendra I.



Bharata Natyam dance poses are sculpted in the Chidambaram temple
Picture courtesy: Malini Srirama

Chidambaram Temple in District Thanjavur

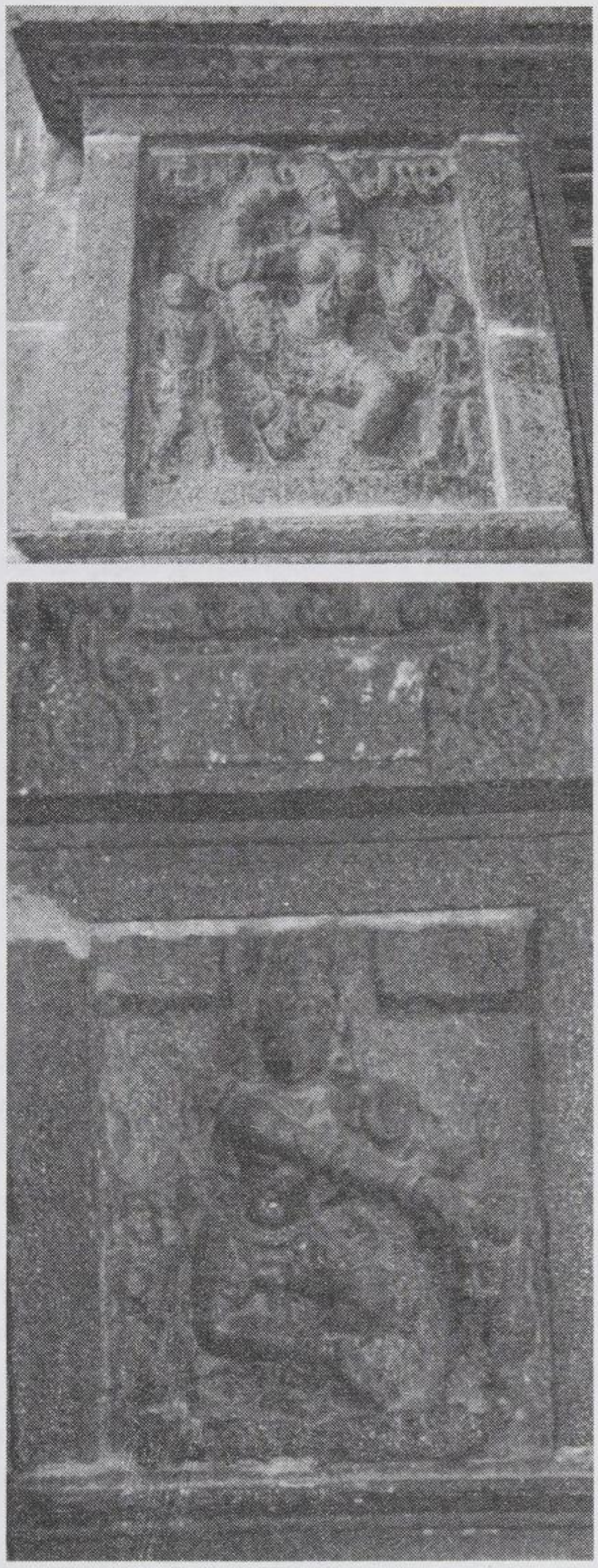
The Shri Nataraja temple is situated between the two rivers, Velar and Coleroon (Kollidam) near the east coast of Tamil Nadu. It is situated in what are the approximate boundary areas between the two traditional regions, Chola Nadu and Nadu Nadu. Chola Nadu consists of the Kaveri

Delta—the seat of Chola power. Nadu Nadu consisted of the areas around modern Cuddalore and Pondicherry and is now generally known as South Arcot.

Chola king Aditya I commissioned the building of the Chidambaram temples between 872 and 885 A.D. According to the inscriptions, he used to spend a considerable time at and near Chidambaram and he and his son Parantaka I are the first kings in the history of Southern India to have gilded the roof of the *Cit Sabha* (the sanctum sanctorum of the Nataraja temple).

Nataraja was the *Kula Devata* or family deity of the Cholas. Scenes of Rajaraja Chola worshipping Shri Nataraja in Chidambaram are depicted in the Rajarajesvara temple in Thanjavur. The temple was built around the year 1,000 A.D. So this temple was of great personal significance to them.

Most of the kings and the dynasties of Southern India held *Nataraja* in great respect. Referring to bronze statues of *Nataraja* (also known as *Ananda Tandava Murties*), Dr. Sharada Srinivasan suggests that some of these might have been crafted as early as the 9th century under the patronage of the Pallava dynasty. She did metallurgical analysis of these statues. Literary tradition also confirms the connection



Sculptures of two Karanas *(dance poses) from the* gopurams *of Chidambaram Temple*
Above two pictures courtesy:
Raja Deekshithar

between the Pallava dynasty and the Chidambaram temple.[4] A few pictures of the same have been provided at the end of the section.

Brihadishvara Temple built by Rajaraja I represents the glorious era of temple building by the Cholas. This is the first granite temple in the world. The *shikhara* is made from a single '80-ton' piece of granite. The temple is also distinguished by its monumental dimensions, towering sculpted towers and intricately carved pillars and columns.

These temple cities became the focal point of economy as well as social and cultural life of the people. Thanjavur, Rameshvaram, Pondicherry, and Kanchi were the major cities that prospered not only during the Chola period but continued to flourish in the centuries after that. Today, these cities are flourishing manufacturing and trading centers and are frequented by tourists and pilgrims.

Many royal charters mention the donation of villages by the Chola kings either for constructing temples or the educational institutions. Such villages were exempt from revenue assessment.

The artisans of this period made five-metal (*panchadhatu*) statues of dancing Shiva. They also used bronze for the purpose.

The history of the Chola Kings from 11th century to 13th century and details about the contributions of Cholas in various fields, their foreign campaigns and victories belong to the volume, *History of India from 1000 A.D. to Modern Times.*

Pandya Dynasty

Pandyas ruled the southernmost parts of the Deccan Peninsula. Pandyas like the Cholas was an ancient dynasty from the Sangam period. They claimed their descent from the Lunar dynasty of the Kurus of Northern India. In the Sangam period, the most prominent of the Pandya kings was Nedunjeliyan whose glories were sung by the poets of the third Sangam period. Some of the rock edicts of Asoka have been found in the Pandya kingdom.

By the third century, their glory faded away. After a few centuries of decline, they again rose to power towards the end of the 6th century. From 7th to the 13th century, their capital was Madurai. Other important cities in the kingdom were the port cities, Kanyakumari, Kottalam and Suchindram. All through their reign, fish was the emblem of the Pandya kings.

Early Pandyas – Genealogy of Important Kings

Kadungon (Katugkon) 560-590 A.D.

|

Maravarman Avanisulamani (Avanicandra) 590-620 A.D.

|

Jatavarman Seliyan Sendan 621-650 A.D.

|

Arikesari Paragkucan Maravarman 650-700 A.D.

|

Koccataiyan Ranathiran 700-730 A.D.

|

Mara Varman Rajasimha I 730-765 A.D.

|

Parantaka Nedunjadaiyan 765-815 A.D.

|

Rajasimha II 815-817 A.D.

|

Varaguna I 817-835 A.D.

|

Srimara Srivallabha 815-862 A.D.

|

Varaguna II 862-885 A.D.

|

Parantaka Viranarayanan 880-905 A.D.

|

Rajasimha III 905-920 A.D.

|

Vira Pandya 934-967 A.D.

|

Decline of power

Most of the information about the Pandya kings is gleaned from the inscriptions. Some of these inscriptions belong to the Cholas and they mention the kings involved in the wars and a few events of the reign of the Pandya kings. An inscription has been recently found in the Vaigai bed at Madurai. It is believed that this inscription belongs to Arikesari-Maravarman. The Sanskrit inscription found at a rock cut cave temple dedicated to Narasimha at Anamalai near Madurai has been dated to 770 A.D. It describes the administrative setup and the ministers under the Pandya ruler of that time. There is a Tamil epigraph at the same place. Sivakasi copper plate inscription of Vira Pandya provides some details about the ministers in his times.

There are literary sources as well. The *Madurai-ttalavaralaru*, a Tamil work describes the history of the great Madurai Temple.

About the Reign of Pandya Kings

Kadungon and his son Avanti-sulamani put an end to the rule of Kalabhras in their area. Jayanta Varman defeated the Cheras and annexed their territory thus reviving their ancient glory. In Tamil literature, he is glorified as a great soldier who won many battles adding to the Pandya power.

According to the Vaigai inscription, Arikesari ruled for a long period and made the kingdom prosperous. Foreign trade flourished during his reign. The Pallavas and the Chalukyas were fighting among themselves; which gave the Pandyas an opportunity to consolidate their power in the southern part of the peninsula. His son Ranathira waged aggressive wars against his neighbors and extended his kingdom to include the Kongu territory. During his rule, the chiefs of the Ay tribe of Tirunelveli and Travancore revolted. Ranathira suppressed the revolt. His son Rajasimha formed an alliance with the Chalukyas and challenged the Pallava king Nandi Varman II. The latter was under seige when one of the Pallava generals rescued him by killing the Pandya generals. Though Pandyas failed to conquer this Pallava king, the Chalukya king, Vikramaditya II defeated Nandi Varman and reached up to Kanchipuram. Vikramaditya II engraved a Kannad inscription on a pillar in Kailashanatha Temple in Kanchi and then returned to his own capital. It seems this invasion was more of a revenge against an earlier defeat suffered by the Chalukyas when they lost their capital Badami.[5]

Rajasimha also faced another attack from the Chalukya king, Kirti Varman II who was assisted by the Ganga king. Pandyas won and offered peace by marital alliance between the two powers.

During the reign of Varaguna I, there was another attack made by the Pallavas. This time, the Pallava king had organized a confederacy of the chiefs of Kongu and Kerala thus trying to surround Varaguna I from three sides. Not only did Varaguna win this battle, he also defeated the chiefs at Travancore and took control of the fortified port town of Vilinam. By now the Pandyas had the entire south under them including Travancore, Coimbatore and Salem districts and interior parts of Kerala. They gained control of sea trade with the Arabian and the European countries.

Encouraged by these victories, his son Sirimara Srivallabha invaded the Sena king of Ceylon. He defeated the Ceylonese King and acquired

northern parts of Ceylon but soon after this conquest, he returned the conquered parts and returned to his kingdom. By marrying the daughter of the Telugu Chola ruler Srikantha, he consolidated his position against the Pallava power.

All through the next 100 years an almost similar sequence of events continued. This time, the Pallavas took the help of the Cholas and the Gangas and defeated Srivallabha. The Pandyan kingdom was reduced to a much smaller size. Though he recovered some parts of his kingdom during another battle, his troubles were not over. At the battle on the banks of river Arisil, Srivallabaha was defeated. Emboldened by this Sena II of Ceylon also attacked him. In 862 A.D., Srivallabha died and his son Varaguna Varman II became the king. For some time, the Pandyas became a feudatory of the Ceylonese kings. Finally, in a decisive battle with the Cholas, Vira Pandya lost and his territory was absorbed in the Chola kingdom.

Administration

The epigraphs of Pandyas indicate that there were ministers who helped the kings. There is a reference to a minister by the name of Vijnapti who made a land grant.[6] The same epigraph also mentions that King Rajasimha had secretaries to help in the administration of his kingdom.

A Sanskrit epigraph mentions the name of Madhurakavi who belonged to a family of doctors and was a minister under King Parantaka Nedunjadaiyan.[7]

The Sivakasi copper plate inscription mentions the name of a minister who was also the secretary in charge of defense and foreign affairs. Land tax was the chief source of revenue. There were taxes on many professions. Foreign trade also brought wealth to the kingdom. Another source of revenue was booty brought from the conquered kingdoms.

Military

Under the minister of defense, there were superintendents who were in charge of various wings of the army.

Sivakasi Copper Plate Grant of Vira Pandya (941 A.D.) mentions the duties of an overseer of elephants. Similarly, Srivaramangalam copper plate grant of King Nedunjadiayan also mentions an official known as *Gajaadhyaksha* (overseer of elephants). Navy was an essential part of the military might of the Pandyas. Pandya kings made several naval campaigns against the kings of Ceylon.

After a successful expedition, the kings often brought home gold and royal crowns as war booty from the defeated enemy kingdom. This added to the prosperity of the kingdom.

Religion

The Pandya kings followed the tenets and traditions of *Vedic Dharma*; they were worshippers of Shiva and Vishnu. They respected all *Devas*. Many inscriptions begin with prayers and invocations to Shiva and Vishnu. Many rulers of Pandya dynasty performed Vedic *Yajnas* such as *Rajasuya* and *Asavamedha*.[8] The kings gave generous grants to the temples. Many epigraphs of the Pandya period refer to charitable activities of the kings. One such activity was when the kings weighed themselves in gold and gave that much gold in donation. These large donations known as *Mahadanas* or *Tulabhara* in Sanskrit were done on certain auspicious days. Mara Varman Arikesri and Rajasimha I made many such donations during their reign. Many rulers gave gold to gold plate the roof of the temples. The land grants made to temples were tax free and the administration made sure that there was no theft of these lands or the revenue of the temples. The royal grants provided for the building of tanks and wells in the villages. Pandya rulers did not interfere with the faith of their subjects.

Education and Literature

As with the rulers of other dynasties, Pandya kings were patrons of education. In fact, kings and princes were knowledgeable people and were well-versed in various arts. In the Vevikudi charter inscription, Rajasimha is described as a depository of sacred knowledge. Elsewhere, the same king is described as 'an ornament of learning'. Similarly, another inscription refers to the elder brother of Vira Pandya as 'the refuge of the learned'[9] and Viranarayana as the 'patron of learned Brahmans'.[10]

The kings cared for the education of the subjects and maintained schools and centers for higher learning. They made land grants to the learned people to establish *Agraharas* and promote learning and education. Several inscriptions have recorded such land grants made by Parantaka Viranarayana and Rajasimha III. Often the barren land was given so that new villages with schools and *Agraharas* could be established.[11] Many of these schools were residential. Vira Pandya gave one village to poet Pitambara for building a center for learning.

The people of the kingdom were provided opportunities to learn various subjects and arts.

The inscriptions of this period are great works of Sanskrit and Tamil literature. Different rhythm schemes were used. These rhythm schemes are as ancient as Vedic literature. The composers of inscriptions were well-versed in Vedic and the post-Vedic literature. In one of the inscriptions, the queen of Parantaka Viranarayana is compared with Lakshmi (Goddess of wealth and prosperity). The effect of northern Indian poets such as Kalidasa is noticeable on the works of later poets of the kingdom.

Summary

The Cholas and the Pandyas were continually engaged in warfare. Often, many other kings from Karnataka and their feudatories were involved as well. In spite of all this, the general life of the common people was not disrupted. In rare cases the destruction of the conquered cities took place. The period of these two dynasties saw great creativity in the fields of education, temple building, literature and several fine arts. Trading ports and other cities flourished. People were prosperous and had access to both academic and vocational education.

Concepts to Understand

1. Imperial Cholas extended their empire from Thanjavur to the Ganga-Yamuna basin in the north.
2. They fought several battles with their neighbors; namely, the Pallavas, the Rashtrakutas and the Pandyas.
3. The highlight of Chola and Pandya reign is literary creativity and the construction of magnificent temples.
4. The kings were patrons of education and fine arts.
5. The Cholas brought prosperity to their subjects.
6. The kings continued to promote religious freedom in all spheres.
7. Several educational centers provided opportunities for learning.
8. Pandya kings prospered in the southern part of the peninsula with their capital at Madurai.
9. Almost all the kings faced challenges from their neighbors. Though the size of the kingdom was affected, the life of the people remained undisturbed.
10. Literary works and inscriptions are the main source of information about the reign of these two dynasties.

Questions

1. Who were the main enemies of the Cholas?
2. How did the Chola rulers ensure proper irrigation facilities?
3. What does *Nataraja* stand for?
4. What were the chief sources of revenue for the Pandyas and the Cholas?
5. Who were the important trading partners of Cholas in Eastern Asia?
6. Who were the trading partners of Pandyas from the south and the west?

Enrichment Activity

1. Write a paragraph about the Chidambaram temple highlighting its important features.

Critical Thinking Activity

1. Why was the naval wing of the military important for the Pandyas and the Cholas? Discuss some important naval expeditions of Cholas. How did these wars enrich the kingdoms?
2. During the years 1991 and 1997, at Poompuhar—a fishing town in the district of Nagapattinam, the NIOT unearthed a shipwreck, lead ingots and six man-made structure and found several ruins of Chola cities. The Indian law prohibits construction within 200 to 300 meters of monuments of archeological importance. However, the local governments are planning to construct the harbor. The ASI has refused to give permission for the same because such an activity will disturb and destroy the ancient monuments. Since several archeological structures are strewn around the site, do you agree with the ASI's rejection of the Harbor Plan?

Endnotes

[1] Source: Kanya Kumari inscription in Sanskrit
[2] Source: Eslam plates of Rajendra Chola I
[3] Source: timeschennai@timesgroup.com dated May 2008
[4] Source of this information: paper by Raja Deekshithar
[5] Check section 4, chapter 35 and 36 for more details
[6] Source: Larger Sinnamanur copper plate grant
[7] Source: Sanskrit epigraph dated 770 A.D. in the rock cut shrine near Madurai. The shrine is dedicated to Narasimha.

[8] Source: Larger Sinnamanur Plates, check section 2, chapter 14 for information about these types of *Yajnas*

[9] Sivakasi inscription

[10] Dalavaipuram Plates

[11] Larger Sinnamanur Plates, Dalavaipuram grant and Sivakasi copper plate grant

Chapter 39

Kalinga and Odisha

This chapter will provide a brief history of Kalinga and focus on the achievements of its rulers in various fields; especially in the field of architecture.

Since the *Mahabharata* times, modern day Odisha together with some parts of Bengal and Madhya Pradesh was known as Kalinga. It was a flourishing kingdom with political relations with the neighboring kingdoms. Odisha's long shoreline and the delta of Mahanadi River and its tributaries afforded the region excellent opportunities for maritime trade with eastern islands of Indonesia and Malaysia. Not much was known about the history of Kalinga prior to the Nanda dynasty's checkered rule over Kalinga.

Recently a team of archeologists stumbled upon the ruins of an ancient fort on the outskirts of Bhubaneswar. On the basis of the evidence collected, archeologists believe that the 2,500 year old city was bigger than classical Athens.

During the joint excavation, the team of archeologists from ASI and the University of California has found eighteen pillars among the remnants of the grand city at Sishupalgarh. A ruined fortification was first discovered some 60 years ago. From the recent excavations, one can see that "the city had four gateways and could have housed up to 25,000 people. Even classical Athens had only 10,000 people."[1] The findings include debris of household pottery and terra-cotta ornaments, pointing to an advanced life-style led by the people who lived there. The polished potteries even have ownership marks on them. "It was a very important city with well-built walls and a big expanse. The pillars we found were part of a gigantic structure, probably used for public gatherings," said Mohanti. Sishupalgarh was once ruled by the Kalinga kings.

Even as early as third or fourth century B.C., these cities were densely populated and had urban planning. The ruins show excellent architectural skills.[2]

The powerful empires of central and northern India always coveted the control of Kalinga. Mahapadmananda of Nanda dynasty conquered and annexed Kalinga to his vast empire. Although Kalinga lost its independence, it became economically prosperous under the Nanda rule. The last Nanda king was overthrown by Chandragupta Maurya.

Some parts of Kalinga continued to be a part of Magadha when Chandragupta Maurya ruled towards the end of the fourth century B.C. Aspiring to expand his empire towards the South, his grandson, Asoka attacked Kalinga. Kalinga was ruled by King Kumara who put up a tough battle to Asoka. Asoka won the battle. However, the bloody battle changed Asoka's political ambitions. He turned towards spreading the message of *Dharma* all over the country.[3] His brother Tisa acted as a viceroy and looked after the administration of Kalinga.

Several rock edicts were built in this area spreading the message of *Dhamma* and inspiring people to lead ethical life and follow religious principles. Asoka also took a great deal of interest in developing the art of stone masonry and his edicts were engraved on the rocks at Dhauli and Jaugada. Asoka died in 232 B.C. and the Maurya Empire lasted up to 185 B.C.

Excavations and consequent new discoveries in the areas adjacent to Langudi, Tarapur, Kayama and Deuli are yielding more evidence about King Asoka's role in the management of Kalinga and the construction of several *Stupas*.

Buddhist relics unearthed during the recent excavations in Jajpur district of Odisha lead scholars to identify Radhanagar as the capital of the ancient kingdom of Kalinga. During the excavations at Radhanagar, a rock-cut elephant, a royal pendant[4] and some terra-cotta potsherds were found. Also, at Deoli, a pillar bearing floral designs was found.[5] During Asoka's time, Tosali was the royal headquarter of Kalinga and Radhanagar was the capital city of Tosali.

Buddhist *Stupas*, inscriptions, pottery and terra-cotta remains dating back to the 3rd century B.C. have been dug up in the Dharmasala block of Odisha's Jajpur district. The area is close to the cave structures of Ratnagiri, and Lalitgiri.

The archeologists consider the discovery of all the ten Asoka *Stupas* within a radius of 10 km. a significant find; especially, because it corroborates the accounts of the Chinese traveler Hieun-Tsang (A.D. 629-645). The excavation at Tarapur has led to the identification of the famous Kesa Stupa.[6] It is believed that Asoka might have chosen this site because

of the existence of Kesa Stupa. Another reason might have been the availability of easy water trade. It may be noted that this region is in the basins of the Brahmani, the Kelua and the Sagadia rivers. Not much is known about the rulers of Kalinga after the decline of the Mauryas. Chedi dynasty came into power in the first century B.C. According to the inscriptions on the Hathi Gumpha (meaning elephant cave)[7] , around the first century B.C., Kharavela was the ruler of this area. The Hathi Gumpha inscription records the achievements of Kharavela up to the thirteenth year of his rule. There are no records after that time. According to this inscription, Kharavela was the third king of the Chedi dynasty. He conquered large parts of Bihar and some parts of Southern India.

Earlier, Kalinga had been devastated by a cyclone and this inscription mentions that Kharavela rebuilt this city.

Power changed hands in Odisha and so did the size and the prosperity of the kingdom. Around the second century A.D. Kalinga came under the control of the Satvahanas of the Western kingdom. The Murunda family ruled on behalf of the Satvahanas. Murundas were overthrown by the chiefs of Naga dynasties of Kausambi, Ahichhatra, Padmavati and Vindhyavati. Once again, this territory came under the Magadha Empire during the Gupta period. After the decline of the Guptas, the southern parts of Kalinga came under the rule of the Durjayas dynasty. About the middle of the sixth century A.D. a chief named Ranadurjaya established his rule in South Kalinga. His successor Prithvimaharaja consolidated his kingdom by conquering the Mudgal chief ruling over Toshali.

After the decline of the Guptas, for about a hundred years, Sailodbhava kings ruled over Kalinga.

Eastern Gangas ruled Kalinga for nearly 1,000 years (496-1435 A.D.).[8] Chodaganga ruled over Kalinga from 1077-1147 A.D. According to local traditions, he is credited to have built the famous temple of Puri. Ganga rulers did not control the entire region of Utkal (another name of Odisha). Intermittently, there were other rulers with either smaller kingdoms within Odisha or those that were vassals of the Ganga rulers. One of them was Bhaumakaras. Some semi-independent provinces known as the Mandalas developed in the kingdom of Bhaumakaras. Many of these remained loyal to the Bhaumakaras. From 8th to 10th century, six queens from Bhaumakara family ruled from Toshali. The last four queens ruled successively. It is a strange and a rare event in the entire history of India. No dynasty has ever

presented so many women as ruling heads. The inscriptions of this period invariably mention the coin-name *rupya*, *rupaka*, or *rupyaka* that reveals the use of metallic money especially of silver. The Anugul copper plate grant of Dharma Mahadevi of this dynasty mentions *rupaka* as *ruka*.[9]

All through the next five centuries up to 1,000 A.D. the influence of Ganga rule over Kalinga was affected by the tripartite struggle between the Pratiharas, Palas, and Paramaras. Their power began to decline especially, after the northern part of Kalinga was annexed by the Palas of Bengal.

Besides Asoka's rock edicts and inscriptions in Udaigiri Caves, we get some information about the historical accounts about Odisha from the tradition of oral narratives. Genealogies were also maintained in Odisha.

The famous Oriya chronicle, *Madala Panji,* written in prose style was compiled from the Puri archives. It is believed that this chronicle began on the order of Anantavarman V of the Ganga dynasty. It was started at the beginning of the 12th century A.D. by Anantavarman V Chodaganga and was updated from time to time. The *Rajavamsavali* (meaning royal genealogy) is a history of this Ganga Dynasty that gives a full list of kings who preceded and succeeded Anantavarman V.[10]

Architectural Marvels of Kalinga

There are several sites of very old temple structures in Kalinga. Temple architecture in Bhubaneswar goes back to two thousand years, from the 3rd century B.C. to the 16th century A.D. The imposing 46 metre high *Lingaraja* temple marks the zenith of the temple building tradition of Bhubaneswar. Inside the temple is the statue of Lingaraja, which is a combined form of Shiva and Vishnu. North of the temple is Bindusagar Tank. It is believed to contain water from all the holy rivers of India.

There are many small temples on the bank of the Bindu Sarovara. Some of these are still active and they are painted afresh from time to time.

Bhubaneswar temples have a unique pattern of Hindu architecture. There are four parts of the temple complex. The outer chamber is known as *Jagamohana* and the inner shrine is known as *Garbhagriha*. The temple walls are artistically carved out of numerous sculptures depicting court scenes, dances, birds, animals and scenes from religious epics and legends. Svarnajalesvara temple built by Sailodbhava rulers has sunken panels showing several war scenes from the *Ramayana* and the *Mahabharata*. One scene depicts the story of Hanuman flying to Lanka in search of Sita.

During the period from 950 A.D. to 1150 A.D. Somavamsi rulers added many new temples around Bhubaneswar. Among these, the most notable ones are Muktesvara, and Rajarani Temples.

Dhauli is known for its Asokan rock edicts, crowned by a relief illustrating an elephant. Carvings of the head and forelegs of the elephant emerging from the rock commemorate the spot where the great transformation of Asoka happened. Said to be the oldest rock cut sculpture in India (3rd century B.C.), these caves contain 11 of the 14 rock edicts to be found, within the arena of the Asokan Empire. Asoka carved his edicts into a rock 5 meters by 3 meters, which are still remarkably clear even after 2,200 years.

Jagannatha temple of Puri was built by Ananta Varman of Eastern Ganga Dynasty. Built in the 12th century, it is dedicated to Vishnu. Inside there are three deities of Krishna, Balarama and their sister Subhadra. The temple complex has a large number of priests and other employees responsible for the maintenance of the temple. Every year, around the months of June-July, a *Rathayatra* (journey of the chariot) is organized here. A huge wooden chariot is pulled by thousands of devotees. Some 200,000 priests, devotees, musicians, drummers and dancers participate in the procession. The word Juggernaut, now a part of the English dictionary is derived from the immense size of the unstoppable Jagannath chariot. This ancient practice of organizing an annual *Rathayatra* continues even today. Puri is one of the four great sites of pilgrimage of the Hindus.

Besides the monumental temples, Kalinga has several cave temples. Most of these are carved out of the rocks of hills. Close to Bhubaneswar, there are 18 cave temples at Udaigiri. The most impressive is the double storied Rani Gumpha (Queen's cave). This cave has exquisitely sculpted figures and friezes of women dancing and playing music. The kings and the courtiers are also shown along with carved foliage and animal figures. Other notable caves are Ganesha Gumpha (Ganesha cave), Hathi Gumpha (elephant cave) and Bagh Gumpha (tiger cave). The entrance to the Bagh Cave temple of Udaigiri is shaped like the open mouth of a tiger.

In Udaigiri, one cave has a bas relief of a *Trishul* (trident) and a snake.

Fifteen caves of Khandagiri are used by Jainas. These caves are so low that it is impossible to stand upright inside them.

Ratnagiri was the seat of a famous Buddhist university during 7th and 11th century A.D. Located at the top of a mountain, there is a Buddhist monastery with a 4 metre seated Buddha. Eight prominent Shiva temples

(known as *pithas*) were built between 989 and 1211 A.D. by the Keshari Dynasty in and around Choudwar, most of which are now in ruins.[12] The Chateswar-Bateswar is one of the temples that survived the ravages of time. It had a well in its precincts.

Recently, the temple committee has found several granite statues dumped in the well. These statues of Shiva, Nataraja, Durga, Lakshmi, Ganesha and some Buddhist deities are made of black granite. These are about three feet tall. The temple committee believes that these were once inside the temple.

Pictures of Lingaraja Temple, Bindu Sarovara Tank, *Rathayatra*, Jagannath, Ratha of Jagannath and Bagh Cave Temple are provided at the end of the section.

Arts and Crafts

Odisi dance is indigenous to Kalinga.

Kalinga was also famous for fine appliqué work and silk weaving. There were many sources of Kalinga's wealth. Maritime trade with Indonesian islands brought riches to the kingdom. This trade created cultural diffusion that left a great impact on the arts of Kalinga. The intricate art of Ikat weaving with geometrical patterns and motifs originally came from Indonesia. Silver filigree also reflects Indonesian influence.

Another art style of Kalinga is paintings on silk that is known as *Pattachitra*.

Tribes in Kalinga

The tribal communities of Odisha constitute about 23% of its total population. Odisha is inhabited by 62 tribes with a long history. Some of the famous ones are Santals, Juangs, Oraon, Bondas, Gadabas, Koyas, Kondhas, Saora or Sabar. The last one is also mentioned with respect in the epic, *Mahabharata*. These tribes lead their life according to their own customs and beliefs. They respect nature and their own individual identity. They have a distinct style of poetry, music, arts and crafts. These tribes have Hindu beliefs, traditions and festivals that they have preserved for centuries. Songs and dances are the essence of the tribal culture of Odisha. The traditions and the ceremonies for wedding, birth and death, include singing songs, rural folk dances and community feasts. They are hard working people and they often shy away from urban influence. They lead a simple life.

Summary

Kalinga has a very ancient past. Modern day Odisha together with some parts of Bengal and Madhya Pradesh was known as Kalinga. As an independent kingdom, it is mentioned in the *Mahabharata*. After Asoka's reign it became a part of the Mauryan Empire. In later history, its closest neighbors had been Chedis, Palas and Chalukyas of Vengi. During the reign of Kharavela, several temple structures were made. Though followers of Vedic Religion, they patronized the construction of Jaina and Buddhist temples. Odisha has been known for its distinct designs in arts and fabrics.

Concepts to Understand

1. Kalinga has been inhabited by numerous tribes who have been leading a simple life untouched by the fates of the surrounding kingdoms.
2. Kalinga is famous for unique designs in fabrics, arts and architecture.
3. Both internal and foreign trade made the region prosperous.
4. Many cities and towns have historical monuments that attract tourists from all over the world.
5. Many cave temples such as Hathi Gumpha and Ganesha Gumpha suggest that these were shrines for Hindu *Devas*. Many caves were later used by Jaina monks for meditation and prayers.

Questions

1. What is the meaning of Juggernaut? How is this word connected with the Sanskrit word Jagannatha?
2. How do the tribals of Odisha lead their life? What are their occupations?
3. Why are the tribals vulnerable to the outside pressures to change their life-style?
4. What are the sources of information about the rulers of Kalinga?
5. Who were the Ganga rulers in this region? How did they make the region prosperous?
6. Write a paragraph about the reign of Kharavela.

Enrichment Activity

1. People belonging to the numerous tribes of Odisha live a simple and happy life. Does any religion have a right to change the life style of other people citing the need for progress?

Critical Thinking Activity

1. Foreign trade brought the influence of Indonesia on the arts and crafts of Kalinga. Discuss one art that was impacted by Indonesia.

Endnotes

[1] R.K. Mohanti, Deccan College, Pune was a member of the team.

[2] Source: article in the *Times of India*; link: http://timesofindia.indiatimes.com/2500-year-old_city_found_in_Orissa/articleshow/2771877.cms

[3] Readers may check section 3, chapter 20 for more details about Asoka.

[4] The royal pendant has the name Tisa inscribed on it.

[5] Source: Archeology- 'Exploring an ancient kingdom' by Prafulla Das; link: http://www.hinduonnet.com/fline/fl2220/stories/20051007000106500.htm

[6] The name Kesa Stupa suggests that the *Stupa* has strands of Buddha's hair.

[7] In Udaigiri and Khandagiri Hills, there are several rock cut shrines formed in the shape of caves.

[8] This dynasty of Eastern Gangas had nothing to do with Gangas of Gangavadi or the Tamil Gangas of later times.

[9] Source: 'Queens and Coins of India' by Jayanti Rath, Assistant Curator - Numismatic Section, Odisha State Museum, Bhubaneswar (OHRJ, vol. XLVII, No. 3)

[10] Source: *Ancient Indian Historiography: Sources and Interpretations*, G.P. Singh

[11] http://www.telegraphindia.com/1080604/jsp/nation/story_9359728.jsp

Chapter 40

Contributions of Southern India

This chapter will focus on the contributions of Southern India in various fields. Though many contributions have been highlighted in section 3, chapter 26, still it is necessary to highlight specific aspects of sociopolitical, religious and cultural life of Indians in the South of the Vindhya Mountains.

India owes its gratitude to this region and the people of Southern India for preserving and safeguarding the culture and heritage of ancient India. Future generations of India will proudly acknowledge their debt to the south for maintaining millennia old traditions during the most difficult times during 1,000 to 1,950 A.D. While Northern India was going through turmoil and influx of invaders and Punjab and Uttar Pradesh were especially trampled over, the South could not only maintain the ancient monuments but were able to add on to these. Their most remarkable contribution is writing of history in the form of inscriptions on rocks, stone pillars, and sculpted walls of the temples, copper plate charters and records on clay tablets. Today, this is the most valuable source of India's ancient past unadulterated by the ravages of time.

Picture of the inscription from Shravanabelgola temple built during the Ganga Dynasty is given at the end of the section.

Political Administration and Policies

Civil Administration

The political structures of territories under various kingdoms, administrative details and policies of the rulers have already been discussed in the preceding chapters about the Southern Indian dynasties from Sangam Period to 1000 A.D. There was a system of hereditary monarchy. The kings were assisted by *Sabha, Parishad* and *Mantris* (assembly, council and ministers). The kingdoms were divided into provinces called *Rashtras* and

provinces were divided into districts (*Vaishyas*) and these districts were divided into groups of villages. Each village (*grama*) was managed by an elected group of elders. At the local level, there was a democratic set up.

The chance of a ruler acting in an autocratic manner was very little because of the guidelines of *Raj Dharma*, social pressure and expectations of the subjects.

The role of vassals and chieftains of feudatories

The chiefs of feudatories were known even during the Sangam period. They tipped the balance of power between different warring dynasties by shifting their alliances. At the same time, they did not hesitate to take advantage of the weakness of major powers to gain their own freedom.

In peace times, these vassals helped their kings in administration, temple construction and promotion of education. They were free to rule their own territory according to their customs and common law. They were responsible for the safety of the people and maintenance of law and order. They were allies of the kings and often times they were an integral part of the kingdom. For example, a few copper plate grants of the Pallava rulers reveal not only the names of their vassals but also include details of how they contributed to the well-being of the kingdom. The Udayendiram grant made by Nandi Varman Pallavamala mentions the name Udaycandra of a region known as Vilvala. At the request of this vassal, the king donated a village to learned people. Today, the village of Udayendiram on the banks of the river Pallar is identified to be the one mentioned in the charter plates.

According to another plate record, Kumarankusa, a feudatory of Pallava King Nandi Varman III was gifted many villages to maintain the services to the Shiva temple in that village.[1]

Another very important feudatory was Bana. The Bana chiefs were vassals of the Pallavas and later of the Cholas. The Cirur plate of Nriptunga Varman mentions the name of the Bana chief Paranjaya. His wife wanted land for some Brahmins. Paranjaya requested the king and he got the village as a grant. Such incidents were numerous and were meticulously recorded in the charter plate records as well as inscriptions sculpted on the walls of the temples.

A series of sculptures found in the Vaikunthaperumal temple at Kanchipuram depicts the main events of the reign of the Pallava rulers. There are sculpted figures of the important vassals loyal to the Pallavas. Similar records of the Chola and Pandya kings are also available..

Most of these feudatories had hereditary chiefs who ran their territory without any interference from the imperial kings.

Temple Management

Temples in the South were not just places of worship or for celebration of the festivals. Temples were socioeconomic centers. They were also the seats of learning. *Mathas* for early education and *Ghattikas* for higher learning were attached to most of the temples. Musicians, dancers, poets and many other artists were also part of the temple complexes. Temples fulfilled religious and spiritual needs of the people, they provided learning opportunities at various levels, they entertained the devotees and they provided jobs for the people. Most of the temples in India are open to the public at all times.

Temples under the Pallavas were small institutions. As the temples grew in size, a more elaborate administrative set up was required. According to Sanskrit inscriptions, the temple needed efficient administration. They needed employees for managing accounts, priests for religious ceremonies, cooks, blacksmiths, goldsmiths, architects, masons, artisans, carpenters, musicians, dancers, poets, weavers, florists etc. Thus the temples created numerous jobs.

There were strict rules about the maintenance and governance of the temples. An overview of the temple administration is given here. The following officials/collectives were responsible for the temple administration:

- *Urar* – (*Ooralar*) Executive
- *Samachitan* – Accountant
- *Idai/Issar* – Manager

Groups of people were responsible for keeping track of donations and expenditure. According to some inscriptions of Uttam Chola, a group of weavers was responsible for looking after these tasks in the temple of Uraka in Kanchipuram.[2]

- *Parakeda* – A Committee
- *Chavai* – A congregation of citizens
- *Ganams* or Committees were assigned the task of organizing functions during auspicious periods such as *Thiruvaathira-ganam*, *Thiru-onam-ganam*, *Pooradam-ganam*, *Uthira-kanathar-ganam*
- *Bhrabashi-ganam*, *Pazhavaaru-kanathar* (Brahmin Sabha for the temple)

Inscriptions spell out the duties, responsibilities and remuneration for all the officials involved. It was forbidden for the priests (known as *Shaanti*) to continue in the same position for more than three years. The *Urar* members were banned from assuming responsibilities of the priests.

All the officials and collectives were controlled by the king through his advisers called *Muthoot*. During the reign of King Kothavarma Marthandam (1,000 A.D.), there was a system to ensure that ordinary workers were not exploited by the temple authorities. Through his local emissary, the king conveyed his order forbidding the temple functionaries from claiming the property of the workers through lease, mortgage or contract. Those violating the edict had to pay a fine of 24 measures of gold, in addition to foregoing the land. In the successive years of turmoil and foreign rule, many of these regulations were violated.

Military and Weapons

Most of the southern dynasties had a naval unit of the army. Because of a long coastline and extensive trade with foreign countries, it was essential to have a standing navy to protect the vessels and ports from enemies. Maintenance of law and order in the kingdom and security against foreign attacks were of great importance to the rulers of southern India.

The art of ship building was known to the southern kings as early as in the Sangam period. There is a mention of the naval force maintained by the Chera ruler, Senguttuvan in *Silappadikaram*.

According to the inscriptions from the later period, the Pallavas, the Cholas, Pandyas and the Cheras possessed large naval fleets of ocean bound ships because these rulers led several expeditions against rulers of far away island kingdoms such as Malaysia, Bali, and Ceylon. For example, Pallava kings, Mahendra Varman I and Narasimha Varman I defeated the Simhala king of Sri Lanka.[3] Similarly the Chola king, Rajendra I led naval expeditions against Sri Lanka and *Kataha* (modern day Malaysia). This is corroborated by inscriptional and literary sources.

Besides a well-maintained naval unit, the rulers of these kingdoms had four wings of the army—elephants, cavalry, infantry and chariots. Elephants were such a vital part of the army that several books have been written about the variety of elephants and how to tame them for warfare. One such famous book is *Gaja Sastra* was written by Shripurusha of Ganga dynasty.

Each of the wings was under the command of an able general. These generals were known as *Senapati, Dandanatha* or *Sainyanatha*.[4] The importance of loyal and able generals is stressed in the Kurals thus, 'An army without leaders will melt away even though it has many good soldiers.' In many battles, the kings were not present. It was believed that the life of a king was too precious to be risked in the battles. For example the invasion of Malakheda was led by an able general of King Rajendra I.

Rajaraja's overseas expeditions against Sri Lanka and Malaysia were led by his generals. The names of many famous generals are mentioned in the inscriptions. For example, a Sanskrit inscription[5] describes the valor of General Karunkara Tondaiman.[6] At the same time there are corroborative references in a literary work of Jayamkondar.[7] When the kings did go to the battle, the army marched by placing the king in the middle and surrounding him with other allies and feudatories. This practice was followed in the great march for the *Mahabharata* War and was later stressed on by Chanakya.

Fighting for the kings and dying for the safety of the subjects was considered to be an honorable act. Battle scenes depicting the valor and glory of the warriors are found on the sculpted walls of many temples. Panels of Vaikuntha Perumal temple of Kanchipuram show foot soldiers holding spears, shields and swords. The services of the generals were well-rewarded by the kings. They were often donated land grants of villages.

The kings were skilled warriors who knew how to use various weapons. Often, they led their armies against the enemy. The princes and especially the crown prince were trained in the martial arts from a very young age. They were expected to be physically strong and able to ride elephants and horses. Rajendra Chola I was trained in riding a horse as well as an elephant. He was also able to use many types of weapons. Chola king Rajaraja I's skills in wielding different weapons were proverbial. It is said that he killed Bhima, the Andhra king with a mace.[8]

Forts

Manu Smriti and *Artha Sastra* both emphasize the importance of building forts at strategic locations. According to Chithra Madhavan, "In the Tamil country also, the importance was given to the construction of forts at strategic locations as early as the Sangam Period. The *Kural* contains many verses on the importance of forts as well as the strategic location and management of the forts."[9] Many other inscriptions describe how the forts help save the kings and their armies.

Military Ethics

As mentioned in earlier chapters, *Sastras* and *Manu Smriti* stressed the observance of military ethics. A war in which the rules were followed in the battlefield was described as *Dharma Yuddha*. When the rules were ignored, the war was considered as *Adharma Yuddha*. Some of the rules of *Dharma Yuddha* were not to attack a soldier who was bereft of weapons, was wounded or suffering. Similarly, women and children were not to be held captives. Armies were not supposed to disrupt civilian life or attack cities.

Towards the end of the *Mahabharata* war, many rules were broken. However, it is to the credit of Indian culture that ethical norms were laid down even for warfare. Poets of the Sangam period also emphasized the importance of observing similar ethics of warfare. *Tolkkapiam* mentions that prior warning should be given to the old people and those who are suffering from a disease.[10] Most of the rulers of Indian kingdoms did follow these rules. The same military policies and rules of warfare were followed by the rulers of other eminent dynasties discussed in the previous chapters. By the 10th century A.D. ethics of warfare was not observed by some of the kings. The feeling of anger between the armies of the Cholas and their enemies was so strong that many of the rules were often ignored. Starting with Parantaka I of Chola dynasty, many rules were violated. After the King defeated the Pandyan ruler, he destroyed the Pandyan capital of Madurai. Later Chola kings such as Rajendra I took women captives and destroyed civilian areas of the Chalukyan kingdom including their capital.

According to several inscriptions, Chola king Rajendra I destroyed the territory of every kingdom he attacked and conquered. The North Indian rulers after their defeat were made to carry the Ganges water on their heads to bring to the Chola kingdom. Ceylon, Kerala and Chalukyas all met with a similar fate after they were defeated by Rajendra I.[11]

Women in Southern India

Historically, women played a passive role as mothers and housewives. However, women played a greater role in the history of Southern India than anywhere else in the contemporary world. They attained high levels of excellence in cultural affairs. They enjoyed freedom in the early centuries of the Common Era which was rare anywhere else in the world. They played an important role in the administration. Some were in charge of district government and managed the affairs of several villages. At the requests of many women, the kings made land grants to the learned people

to construct and maintain temples and *Mathas* in the temple complex. Often women of different social status made endowments in their own rights. For example, the mother of a minister of Sunder Chola made an endowment for feeding every day at least one learned scholar and gifted a big lamp to the Vishnu temple at Srirangam.[12] Similar inscriptions of Pandyas and Chola times record the names of ladies who made donations of gold or money to the temples.

Queens of various dynasties and wives of chieftains are glorified and praised in the inscriptions. For example, an inscription in the Kailashanatha Temple at Kanchipuram describes the qualities of the Pallava queen, Rangapataka, and Velurpalaiyam Plate records mention the qualities of Reva, the queen of Pallava King, Nandi Varman II.

Maritime Trade and Economy - Cities and Urban Complexes

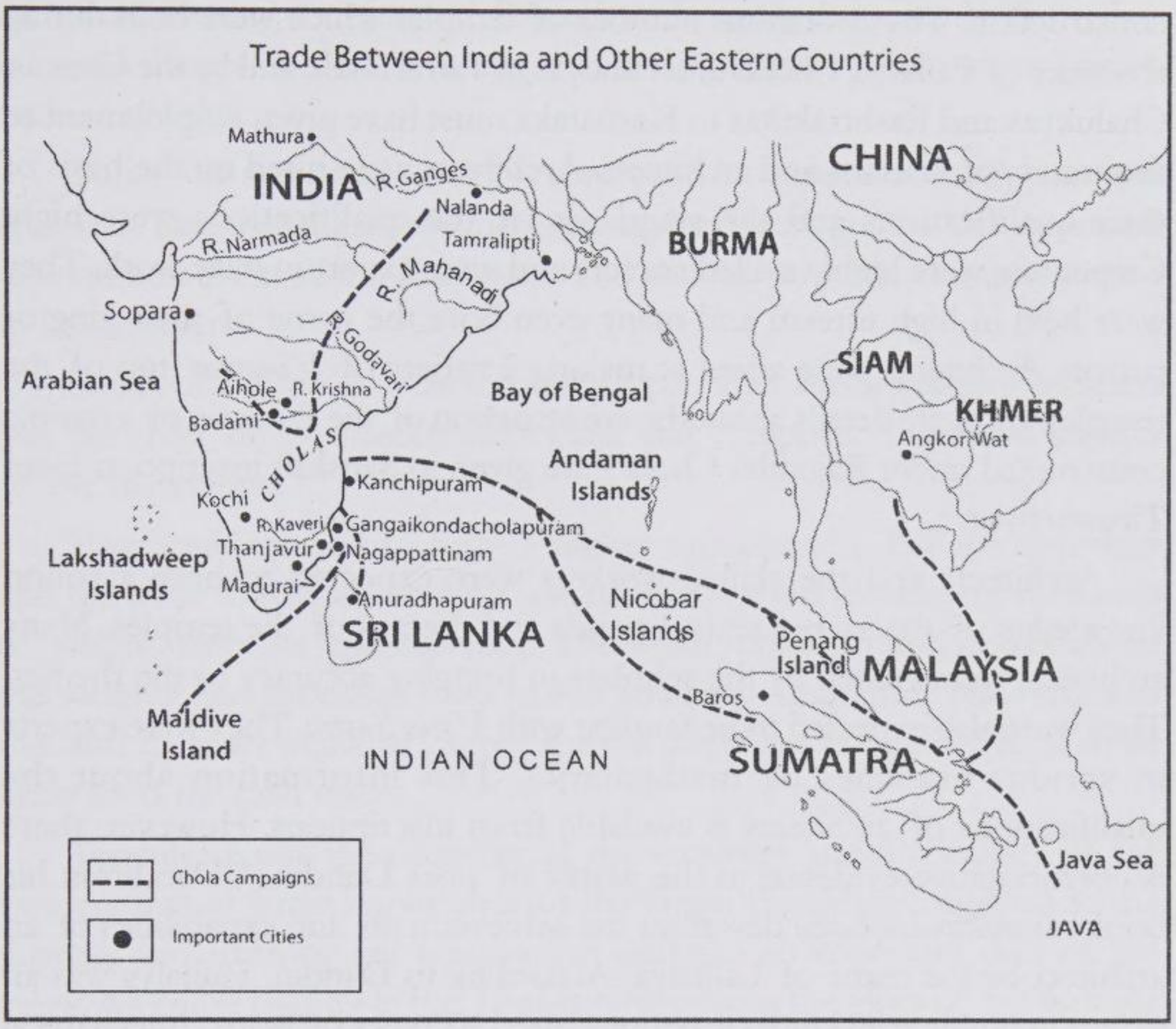
Port cities of Sopara, Thane, Kannur, Mangalore, Mamallapuram, Tuticorin, Kodungallur, Kollam, Udipi, Bakurna, Arikamedu (near Pondicherry) and Nagapattinam carried out maritime trade with far off places, such as islands of Indonesian archipelago and China in the east and Arabian, Roman and African countries in the west. A vast network of rivers of the south facilitated oceangoing trade.

The other important cities which developed from Sangam period to 1000 A.D. were (still are) Kanchipuram, Madurai, Thanjavur, Badami, Aihole, Kalyana, Belur, Tiruchirapalli, Malakheda, Lattaluru, Ellora, Ajanta, Melkote, Pattadakallu, Nasik, Echalapura, Vengi, Manne, Talakadu and Sharavanabelagola. These towns became big cities and gained prosperity in various ways. Some of these were capital cities, some others were manufacturing towns and almost all were temple cities attracting thousands of devotees. Kanchipuram besides being the capital city under the Pallavas has been a university town, a manufacturing town and a temple city. Shankaracharya, the famous 9th century philosopher had established four *Mathas* in four regions of India. Another *Matha* (also called *Pitha*) was established in Kanchipuram. Many of these cities still flourish in the region. Cities were provided with potable water through reservoirs and wells. Many cities had military garrisons. Today, many of these cities are in the western states of Maharashtra and central state of Madhya Pradesh.

Maritime Trade and Economy

Ocean going trade with far off countries through the ports on the east and the west coast led to the prosperity of kingdoms in the Southern

India. The following map of Deccan under the Chola Empire shows the trade within India and trade between India and the eastern countries.



It seems that the balance of trade was always favorable for India. As a result, an enormous amount of gold flowed into the region. Opulent jewelry used in the temple architecture and the bejeweled men and women of those times testify to the abundance of gold in the region.

Goldsmiths were busy and so were other artisans engaged in manufacturing and small scale cottage industries. Silk, cotton, sandalwood and ivory goods gave rise to flourishing industries. There was a great deal of inland trade between the southern and northern kingdoms. Horses, woodwork, cottons and food products were the main items of trade. Gradually, silk textiles of different varieties were made in several parts of northern India. Bengal, Kashmir and Kashi were some of the major places where silk was produced. There were separate guilds of occupations. Barbers, leather workers, weavers, artisans, masons, carpenters and blacksmiths, all had their own guilds.

Textile industry ranging from a variety of cotton and silk fabrics provided the kingdom with a flow of foreign gold. It kept the weavers and the spinners busy year round.

A picture of silk cocoons on a frame is given at the end of the section. Some of the most flourishing industries were connected with temple construction. The enormous number of temples which were built during the times of Pallavas, Cholas and Pandyas in Tamil Nadu and by the Gangas, Chalukyas and Rashtrakutas in Karnataka must have given employment to thousands of artisans and architects. Architects were hired on the basis of their qualifications and the standards of the qualifications were high. Carpenters were highly skilled carvers and were expert in inlay work. They were held in high esteem and many even bore the name of their king or patron. Architects were adept at making a variety of *Vimanas* (top of the temple). Intricate details about the construction of the *Vimanas* of a temple constructed under Rajendra Chola I are given in Sanskrit inscription from Tiruvorriyur.[13]

Architects and the skilled workers were expected to have a sound knowledge of the sacred texts, legends and themes of the temples. Many architects were guided by the scholars in bringing accuracy to the themes. They were also expected to be familiar with *Vastu Sastra*. They were experts in various branches of mathematics. This information about the qualifications of architects is available from inscriptions. However, there is corroborative evidence in the works of poet Dandin.[14] Dandin in his book *Avantisundarikatha* describes the achievements and capabilities of an architect by the name of Lalitalya. According to Dandin, Lalitalya was an expert in building 96 kinds of temples, used six types of *yantras* (mechanical devices) and had thirty six qualifications prescribed for an architect.

Building activities in the South also involved construction of palaces for the royalty.

Fishing and shipbuilding were other very busy occupations, besides manufacturing arts and crafts, construction work, masonry, stone cutting, making tools and weapons, household gadgets, wood carving, inlay work (ivory inlay in wood) and, five-metal *(pancha dhatu)* items. It seems that for the most part, every citizen was gainfully employed regardless of the region or the ruling dynasty and each belonged to one or the other guild.

Guilds System in the South[15]

Guilds were corporate organizations of occupational groups such as weavers, carpenters etc. One of the functions of these guilds was to provide training and education to young apprentices. After the young students finished early education in the *Mathas*, many students joined a guild of their choice for training and learned the skill. These guilds also acted as

banks for their workers. Some guilds even had their own armies that helped the kings in times of external danger. Many guilds provided justice to the members. During the time of Rajendra Chola II, the records show that many of the guilds were even engaged in deciding cases of serious crimes such as murder.

During the same period, (11th century) an inscription in the Aganisvara temple at Tamaraipakkam mentions the agriculturist's guild which consisted of members from all the four castes and had the power to dispense justice to its members.

Chiefs of the guilds were learned people. Poet Pandya-dramilabharana was the chief of the blacksmith's guild and composed the Tamil section of the inscription.[16]

Many guilds joined to form a higher organization. For the economy and the trade to run smoothly, it was necessary to have standard measures of weight, distance and currency. The inscriptions contain details about the weights and measures used in the Southern kingdoms. *Nivartana* was the land measure equal to twenty rods. *Kalanju* was the gold weight most likely used for cash trade.

Agriculture was the mainstay of the economy and the welfare of the farmers was of great importance to the kings. Providing irrigation to the farmers and ensuring fair taxation on land was an important duty of the kings. An entire chapter in the *Tirukkural* mentions the glory of the farming profession. Many inscriptions describe the types of crops raised and the irrigational facilities provided by kings.

In the Pallava territory, rice, plantains and sugar cane were the main crops. Groves of fruit trees were also abundant.[17] Mango and coconut trees are also mentioned as common fruit groves all over the south. There were cotton plantations in Maharashtra and Karnataka and spices in the Eastern coastal plains.

Irrigation and Water Conservation

Besides building temples, the rulers of all of these dynasties built tanks, large reservoirs, lakes, canals and dams to provide water to the farmers for irrigation. Storage of large quantities of water in case of acute shortage of water or in case of failure of the monsoons necessitated the construction of wells, tanks, canals and channels linking the rivers to the tanks and the small channels. Almost all the kings considered irrigation their most important duty.[18] These efforts at water conservation assured prosperous

agriculture. According to the inscriptions, Chola rulers tried to utilize the Kaveri river waters for irrigation. Chola king, Parantaka I got hundreds of deep channels dug up to provide clear drinkable water. These measures made the Chola Empire the most fertile area in the south.

Udayendiram plates mention the use of water levers (known as *jala-yantras*) for irrigating large fields.

Land revenue was collected from the farmers. There were a few cases when the prosperous landlords hired farmers for help. However, tenant farming was an exception. Often taxes were paid in rice and other produce for the maintenance of the temples. Weavers and workers in many other professions paid profession taxes.

Goldsmiths must have been in great demand in those days. The kings and the members of the royal family donated intricately made gold ornaments to the temples. Some gold ornaments were studded with gems and had artistic inlay designs. Looking at some of the ornaments in the temples, it is obvious that the art of jewelry-making had attained a great deal of perfection in those days.

As mentioned earlier, there were several flourishing ports both on the east and the west coast. Along the Malabar Coast, there were many ports such as Vatapi, Konnur, Thane, Sopara, Nelcynda and Mangalore. Three important ports on the southernmost tip of India were Tuticorin, Kodungallur and Kollam. On the eastern coast known as Coromandel Coast. Badar, Mamallapuram and Nagapattinam were busy ports.

Arts and Architecture

Architecture of the South has already been discussed in the chapters of various dynasties. Some thirty thousand temples constructed under the patronage of Kings of ancient dynasties like the Gangas, Kadambas, Pandyas, Cholas, Pallavas, Chalukyas and Rashtrakutas, to name a few, add to the greatest architectural marvels of India. The medium used varied, the structures and foundations were according to the guidelines of architecture laid down in *Vastu Sastra*. This is the reason that though many temples are near the shore, none of the temples were damaged in any way during the catastrophic tsunami of 2004.

Many sculpted heads of *Purushamrigas* (half man and half lion) have been found in the southern temples especially in the Chidambaram Temple of Nataraja. "*Purushamrigas* stand to welcome the visitors to the *mandapa* (raised dais) in front of the Subrahmania shrine in the Brihadishvara temple in Thanjavur."[19] Surprisingly, it resembles the Sphinx of Gaza in Egypt.

Sculpture and Paintings

The art of painting murals and frescoes was regarded as an essential part of culture to be acquired by the cultured people in the society. Paintings acquired a high degree of perfection even during the Sangam period. It was during the Pallava reign that it was used in temple architecture. Pallava kings patronized painters. Some of the kings were talented in this field. For example, Mahendra Varman was known as a tiger (superior) among painters. The distinct southern style of painting that he developed and encouraged his artists to follow, has been mentioned in his Mamandur inscription.

Sculptors (*silpins* in Sanskrit) were hired by the kings to engrave royal orders and charters on stone and copper plates. Artisans who painted the columns with inscriptions and the sculptors were highly respected in Southern India. Many inscriptions describe the art and skill of the painters and the scribes. They are referred to as *Oviyacittirakari*.[20] This Tamil word literally means that painters first painted the inscription on the stone or metal and then the carvers did the engraving on the painted words. It is also possible that the carvers and the painters were the same artists. Sometimes, the artists were given recognition in the inscription. For example, during the Pallava times, there was a *silpi* from Kanchi who is mentioned in the Velanjeri Plates of Aparajito as the foremost of *silpins*. Many other adjectives are used for him in the inscription.

The murals at Brihadeshwera Temple in Thanjavur built by the Cholas and paintings at Kailashanatha temple in Kanchi reflect the depth of knowledge as well as the skills of these painters.

The picture of this fresco is given at the end of the section.

Paints and Colors

In the fresco shown at the end of the section and the murals of Ajanta cave complex, painters used a mix of indigo and varnish. These painters often mixed 14 colors before they got the right shade. Varnish is a natural product and so is indigo. The color of natural plant products is indelible and it does not fade away. In India, the use of paints of such high gloss and quality predates the use of paints in Europe.

Music and Dance

Spirituality has been the central theme of music and dance all over the Indian subcontinent. Through dance and music people communicated with

nature and the Supreme Being. This aspect of music and dance was present in the music and dance styles of the Southern Regions of India as well.[21]

A variety of instruments were used, such as *veena* of various designs, flutes, and *mridangam* and percussion instruments. On auspicious occasions, people often played these instruments in chorus. Besides these instruments, the southern music also used war drums, conches, tambourines, rows of bells, kettle drums etc. Vocal music was also popular. Not only was royal patronage given to the musicians but many kings were musicians themselves. For example, Nandi Varman Pallavamalla was proficient in music. Similarly, Pandyan ruler, Parantaka Nedunjadaiyan was also an excellent musician. In the Velvikudi Charter, he is referred to as Gita Kinnaran (gem among musicians).

The distinct style of Southern music that evolved came to be known as Carnatic music. Though similar to the north Indian music in basic concepts and patterns, there are many *ragas* that are different in Carnatic music. Fascinating dance styles of Southern India from ancient times still captivate audiences all over the world. Kuchipudi from Kerala and Bharata Natyam from Tamil Nadu are dance styles distinct from north Indian dance styles.

The Chidambaram temple shows 108 sculpted poses (*karanas*) on the walls of the temples.

Temple courtyards and lobbies served as auditoriums as well as the centers of various arts.

Southern India also developed a different cuisine. Several varieties of vegetables and fruits are mostly grown in the Southern climate and that might have contributed to the differences in cuisine.

Religion and Philosophy

In the preceding pages, many kings from various important dynasties have been discussed. These kings followed Vedic Hindu *Dharma*. The symbols used on the insignia were also from the Vaishnava or Shaiva traditions. The temples in Southern India reflect the same Vedic outlook—seeing the infinite God in various forms and manifestations. The Tamil, Prakrit, Sanskrit and the bilingual inscriptions on the rocks, cave walls, pillars and copper plates also suggest that there was no religious conflict. In diversity of faiths there was essential unity for which *Vedic Dharma* is famous. Vishnu, Shiva, Rama, Krishna, Ganesha, Nandi, Durga, Sarasvati and Lakshmi form the theme of the stories sculpted on the pillars and walls of the temples. Similarly, the sages such as Agastya, Valmiki and Vyagrapada were held in

great esteem. There was neither any social conflict arising out of religious diversity nor were the wars between kingdoms caused by immense variety of faith traditions and religious practices of the kings. The royal families as well as the families of the subjects had complete freedom to worship as they liked. All through the history of this region up to 1000 A.D., though the kings followed Shiva or Vishnu or any other form of the Supreme Being, they did not force the members of the royal family or their subjects to follow them. In the words of K.A. Nilakanta Sastri, "Generally speaking, the religious temper of the period was by no means narrow or sectarian. Not only did kings as a rule, tolerate religions and sects other than their own, but they often patronized all persuasions in equal measure."[22] Parsees were persecuted in Iran after the sixth century. They found a safe refuge at Sanjan in Thana district. From there, they spread in the western parts of India.

During this period new ideas were added to Vedic religion. Many people started composing devotional songs dedicated to one or the other form of the Supreme Being. The singers would sing in front of their favorite form of the Supreme Being. This group of composers/singers was known as *Alvars* and *Nayanars*.

Shankaracharya

Born in 788 A.D. in Kerala, he is considered to be one the greatest philosophers of India. In the field of philosophy, Shankara advocated a new school of philosophy known as *Advaita* (literally means non-dualism). Shankara emphasized that the Divine and the individual are the same and people do not realize this because of their ignorance and illusion.

He was offered an honorable position in the court of a Kerala ruler. He refused the position. He traveled all over India from Kashmir to Kanchi and Puri to Dwarka. He stayed in Kashmir for a long time and wrote commentaries on *Vedanta Sutras*. During his travels he held philosophic discussions with many scholars on different aspects of *Vedic Dharma*. He studied ancient literature such as the *Upanisadas* and the *Bhagvad Gita*. At a very young age, he started asking questions such as, who is the Divine Being, who am I and what type of relationship is there between the living beings and the Supreme Being. He arrived at the conclusion that the individual and the Divine are the same. To realize that, one has to attain knowledge and follow the path of self-realization. He was perhaps the first philosopher who explained the nature of dreams and discussed the reality of the mind. He also emphasized the worship of the Supreme Being

in any way that an individual chooses. According to him, the worship of Vishnu, Shiva, *Devi*, Ganesha or any other manifestation of God— are all paths to self-realization.

Shankara wrote several books and commentaries such as *Ananda Lahari*, *Shankarabhashya*, *Prabudha Sudhakar*, and *Vivek Chudamani*. His commentary on the *Bhagvad Gita—Gita Mahabhashya* is very popular. He also wrote a collection of devotional poems expressing morals and practical wisdom. The title of this collection is *Saundarya Lahari*. Some of his sayings became the cornerstone of Hindu philosophy.

Here is a very touching message from *Saundarya Lahari*:

Let my every word be a prayer to Thee,
Every movement of my hands a ritual gesture to Thee,
Every step I take a circumambulation of Thy image,
Every morsel I eat a rite of sacrifice to Thee,
Every time I lay down a prostration at Thy feet;
Every act of personal pleasure and all else that I do,
Let it all be a form of worshiping Thee."[23]

Shankara was a great logician and a Sanskrit scholar. He traveled from place to place preaching to people and holding discourses. Through proper reasoning, he would convince people about the non-dual nature of the creation and the Creator. He was a humble austere man. It is said that once he lost an argument to an ordinary worker, and then he touched the feet of that worker.

Shankara established four *Mathas* in four corners of India: at Badrinath in the north, Dwarka in the west, Puri in the east and Shringeri in the South. Today each of these *Mathas* is under the guidance of a Shankaracharya. These are places of pilgrimage for thousands of devotees.

Shankara died at a very young age of thirty two. Today, all over the world, *Advaita* as a subject is taught in many renowned universities.

In the field of philosophy, not everyone agreed with him. Many other philosophers advocated that devotion to the Supreme Being is the most liberating way for the individual. The Supreme Being and the individual being are not the same. The Supreme Being is infinite whereas a living entity is limited. The most famous philosopher of Dualism was Ramanuja from Tamil Nadu. Around 11th century, he wrote *Ramanujabhashya*. He preached the path of devotion.

The festivals of Deccan were very similar to the festivals of other regions of the subcontinent. For example, the Deepa festival used to be held in the lunar month of Karthika (November-December). This continues even today not just in the Deccan but all over the country. The New Year (*Ugadi*) has been celebrated in the beginning of April since the early Sangam period. There were other festivals connected with the change of seasons. Victories of the kings were celebrated with great pomp and show.

Language, Literature and Education

In the Tamil Nadu region, Tamil was the common spoken language. Royal decrees were in Tamil too. It was written in the rounded Vattezhutthu script. Sanskrit, Prakrit and Tamil were used for writing the inscriptions. The script was Devanagari, Grantha and Brahmi.

Manipravalam, a mixture of Tamil and Sanskrit, was used by the temple priests. The development of Grantha script started in the fifth century A.D., in the Southern parts of India. Throughout the ancient times, its primary use had been to set Sanskrit works in written form.

For centuries, Vedic books were written and taught in Grantha script and not in Devanagari. Even today, the Vedic schools in Tamil Nadu run by various *mathas* teach Vedas written in Grantha script.

In Andhra Desha, two languages were used—Telugu and Sanskrit. In the region of Karnataka, Sanskrit, Prakrit and Kannad were the spoken languages and the scripts used were Brahmi and Kannad. The coastal areas used Konkani that was a dialect at that time.

The epigraphs and other records of Pallavas, Pandyas, Cholas, Rashtrakutas and other dynasties indicate that the kings considered it a meritorious duty to donate land to scholars to promote education and maintain temples.

There were *Gurukulas*, *Mathas* and *Ghatikkas* offering educational facilities to the common people. In these schools and institutes, a variety of subjects were taught: languages, Sanskrit literature, grammar, mathematics, sciences, architecture, astronomy, political science and administration were some of the subjects taught. Many schools trained soldiers in wielding weapons and training horses and elephants. Various occupational guilds were responsible for providing vocational training on an apprenticeship basis. Many craftsmen, artisans, architects, masons, sculptors, painters, stone cutters, carpenters, weavers, ship builders, scribes

and smiths were trained by their guilds. For their times, Southern Indian societies were well-organized and their economies were prosperous and well regulated.

In the field of literature, great literary geniuses were well-versed in prose and poetic expressions. Today, the enormous numbers of inscriptions are seen "as a mirror to Sanskrit literature."[24]

The writers all over the Deccan Peninsula were familiar with the literary works such as *Ramayana*, *Mahabharata*, *Puranas*, *Dharma Sastras*, works of Kalidasa, Panini, *Artha Sastra* of Chanakya and other legends connected with the stories of *Devas* and *Devis*. The temples used these themes on the sculpted panels and friezes. These stories are also found as a part of the inscriptions. For example, that Rama built a bridge from Tuticorin to Sri Lanka to cross over the strait is mentioned in the Tiruvalangadu plate inscription. Velanjeri plates of Pallava king Aparajito mention the defeat of Khara and Dushana (two brothers of Ravana) by Rama. Kasakudi plates describe the glories of Lakshmi. Many queens were compared with Lakshmi by their subjects and the poets.

Great Kannad poet Ranna wrote *Gadayuddha*—a book about warfare with mace. This book gives glorified accounts of the victories of King Satyashraya of Eastern Chalukya Dynasty.

Most of the literary works were composed in poetry. Like the Vedic and post-Vedic literature, the poets of the South used 18 to 26 rhythm schemes.

Many inscriptions and sculpted panels bear the signature and the names of the writers. For example, the name Bassavi Setti is written on a shrine of Tirathankaras at Shravanabelagola. Similarly, two names are still visible on Hoysaleshwera temple at Halebid.

Some famous Tamil literary works of Chola period were *Kalingattuparani, Kulottungasolan-ula*, *Rajarajasolan-ula*. These are historical and biographical accounts of the kings and their achievements.

Society

As mentioned earlier, artisans were held in high esteem. Untouchability is not mentioned in any record or literary work. Architects and carpenters were held in such high regard that often they assumed the name of their sovereign. People engaged in different occupations carried on their duties regardless of whether the kingdom was going through war or peace times. This was the greatest contribution of the system of occupational division

of society and specialization of labor. The trade, agriculture, literary activities, architecture and construction work, manufacturing and smithy, all occupations flourished. The wars were conducted on vacant lands and in the forests. Common citizens were rarely affected by such turmoil and destruction of life. Gradually the ethics of warfare changed and some kings destroyed conquered cities. Reviewing the historical accounts up to 1,000 A.D. it is found that these incidents were rare.

Commonalities in Culture

Harvest season is celebrated all over the country. The dates vary because the harvesting season arrives in the south earlier than it does in the north. Common festivals are Ram Navami, Durga Puja, Krishna Janmashthami, Diwali and Dussehra. These festivals are based on common history and religious beliefs and traditions. The dates of seasonal festivals varied from region to region as indicated by the following chart:

- Pongal – Tamil harvest festival (January 14)
- Thaipusam – South Indian festival honoring Lord Muruga (January 23)
- Holi – North Indian "festival of colors" celebrating the first full moon of spring (March 22)
- Gudi Padwa – Maharashtrian New Year (April 6)
- Ugadi – Telugu and Kannada New Year (April 7)
- Puthandu – Tamil New Year (April 13)
- Vaisakhi – Commemorates both the establishment of the *Khalsa* (community of Sikhs trained by Guru Gobind Singh in 1699 as a military wing of Hindu society) and the harvest festival (April 13). Members of Sikh communities around the world celebrate Vaisakhi in April. In Paris, they put on a show of their warrior skills.
- Poila Boishakh – Bengali New Year (April 14)

Sciences

Medicine

The science and practice of Ayurveda were very advanced in the South. The kings established endowments of land for practicing physicians. Most of the villages had at least one physician. These physicians were familiar with the works of Sushruta and Charaka.[25] Several inscriptions mention the medical practices and contain a long list of herbal medicines. For

example, the Sanskrit section of Sinnamanur plates refers to a scholar whose ancestors were learned in Vedas and were familiar with the medical work known as *Agnivesya-Kalpa*. It is believed that Agnivesya predates Sushruta.

Tamil epigraphs mention hospitals, medical colleges and hostels for students started by Vira Chola.

As the social-political life was disrupted under foreign invasions and several universities such as Nalanda and Takshashila were destroyed, many physicians and scholars moved to Kerala and other neighboring regions. When Nalanda and Takshashila were destroyed, Ujjain, Kerala and Kanchi became the greatest centers of Ayurvedic teaching.

Astronomy and Mathematics

The south was not impacted by the Arab invasions during the first four centuries after the first invasion in the 7th century. Mathematics continued to develop in the universities of Southern India. It may be remembered that Lagadha, the famous astronomer and mathematician of 14th century B.C. belonged to Kerala.

Summary

To this region south of the Vindhyas, we owe our gratitude for preserving Ancient India's heritage and culture. The greatest contributions of the South were not only in the field of arts and commerce but were in the field of architecture, literature and philosophy.

Concepts to Understand

1. The South and the North were bound by the cultural thread and shared the same holy texts and ancient literature.
2. The social structure and the educational patterns were similar.
3. There were no caste frictions. Weavers, carpenters, masons, stone cutters, sculptors and artisans of all types were held in high esteem. They even assumed the names of the kings they served.
4. The southern region created rich literature in Tamil and Sanskrit.
5. In wisdom literature and sociopolitical advice, *Tirukural* by Tiruvalluvar of Sangam Age compares well with Kautilya's *Artha Sastra*
6. *Vedas* and the epics were held in great esteem.
7. Devotion to the Supreme Being and the *Devas* found lyrical expression in the vast literature of Southern India.

8. During the period of invasions and influx, this region preserved the *Vedic Dharma*, its traditions and literature in their pristine quality.
9. Shankaracharya and Ramanuja were two of the greatest philosophers from southern India. Shankaracharya expounded the Advaita theory.
10. Public debates and discourses in philosophy were common in the Southern region as well.
11. Each dynasty added to the architectural marvels of the region. They reflect the aesthetics and sound structural principles of architecture.
12. The artists of those times cut boulders and rocks and then chiseled the pieces to give them finely defined features.
13. Two millennia ago, Indian political philosophers were familiar with the modern day concepts of a sovereign state, a nation state and the need of a well-organized army led by capable generals. Chanakya in the 4th century B.C. states that the *Senapati* should be well-trained in riding horses and elephants and should be adept in using all types of weapons. In the same vein, Tiruvalluvar states that an army without able generals is no good even if it has good soldiers.
14. The kings used to make temporary garrisons outside the cities and villages so that the economic and social life of the people was not affected by the wars.

Questions

1. When the kings did go to the battle, the army marched by placing the king in the middle and surrounding him with other allies and feudatories. Compare this practice of providing a moving castle for the king with four wings of the army with the game of chess. Why was the safety of the king of such great importance?
2. How did foreign trade enrich the kingdoms of the south?
3. How did the rivers of Southern India facilitate internal and foreign trade?
4. Why did the northern kingdoms need a navy?

Enrichment Activity

1. Students may study the features of an ancient temple in Southern India and compare the architecture of that temple with the temple recently constructed in North America using the ancient principles of *Vastu Sastra.*

Critical Thinking Activity

1. Which bond is the writer talking about?

   Birth ceases when all attachments are severed;
   Otherwise, one beholds unceasingly the transitoriness of life.
   Attach yourself to Him who is free from all attachments.
   Bind yourself to that bond in order that all other bonds may be broken.
   -*Tirukkural* 35: 349-350

2. Critically evaluate the following statement of C.P. Ramaswamy, "Intellectual and spiritual achievements of Shankara have made a deep impression on the history of world thought."

   What type of impact has he left on religion and philosophy?
   Links for more information about mathematics and astronomy in Ancient India

   http://www-groups.dcs.st-and.ac.uk/~history/HistTopics/Indian_mathematic...

   www.crystalinks.com/indiastronomy.html

Endnotes

[1] Source: Velurpalaiyam plates
[2] Source: Information about the Madras Museum plates of Uttam Chola is given in *History and Culture of Tamil Nadu*, Chithra Madhavan
[3] Source: evidence from Kasakudi Plates , corroborated by the literary account given in *Mahavamsa*
[4] These are Sanskrit words for the commander of an army. Similar words had been used by the people of the northern kingdoms.
[5] *Draksarama* inscription in Andhra Pradesh.
[6] Karunkara was a general under Chola King Kulottungal
[7] *Kalingattuparani* by Jayamkondar
[8] Source: Karandai epigraph and inscription on Tiruvalangadu copper plates
[9] 'History and Culture of Tamil Nadu' by Chithra Madhavan
[10] Source: *Tolkkapiam*, a literary work
[11] Sources: Karandai plate inscription, Tiruvalanguda plates, Hottur inscriptions
[12] Source: Anbil plates record
[13] Source: 'A Sanskrit inscription from Tiruvorriyur' by S.R. Srinivasan
[14] As mentioned earlier, Dandin was the court poet of the Pallavas.
[15] Check section 3, chapter 26 for more details about the guild system in the Indian subcontinent.
[16] Source: Dalavaipuram copper plate inscription; information quoted in 'Dalavaipuram copper plate grant of Parantaka Vira narayana Pandya' by T.N. Subramaniam

[17] Source: Pallankovil copper plate grant 6th century A.D.
[18] See pictures of the tanks at the end of section 4
[19] Source: 'The Sphinxes of India' by Raja Deekshithar
[20] Source: Larger Leiden Plates
[21] Check section 3, chapter 29 for more details.
[22] Source: 'The Colas' by K.A. Nilakanta Sasri
[23] Verse 27 from *Saundarya Lahari* by Sri Shankaracharya
[24] Quote from, *History and Culture of Tamil Nadu*, by Chithra Madahavan
[25] Check section 3, chapter 27 for more details.

Epilogue

The preceding pages cover the history of Ancient India approximately from 6500 B.C. to 1000 A.D.

For some of the dynasties in different parts of the subcontinent, the accounts of the ruling kings after 1000 A.D. are not covered in this volume. This forms a part of the 'History of Modern India.'

The summary position of political conditions prevailing in the subcontinent towards the end of the 10th century/beginning of 11th century is given in the following pages.

In **Punjab**, the Turks, Arabs and Persians had made inroads. In the Ravi Doab (basin) a weak kingdom under Rajyapala was finding it difficult to hold on to its small territory. Rajyapala ruled from 991-1018 A.D. Each time the foreign marauders marched to Delhi, Punjab was trampled on and devastated. Today we hardly see any remains of ancient monuments or even the ruins of these places.

Elsewhere the mighty kingdoms of Gandharas, Kaikeyas, the Madras, Kshudrakas, and Purus were all vanquished by the various Central Asian invaders. In the 7th century A.D., Muslims conquered Sindh. Though the Muslims could not go eastward beyond Sindh, they ruled Sindh and the adjacent territory for almost three centuries. By the end of the 10th century, the control of the region by small but different hostile hordes brought devastation and anarchy to the once glorious Sapt-Saindhava region where the early Vedic civilization and advanced Indus-Sarasvati Civilizations began.

Delhi Known as Indraprastha

From the *Mahabharata* times, Delhi was known as Indraprastha. It became part of several important empires. The city was destroyed by the Huns. Anangpala I, the founder of the Tomara Dynasty rebuilt Indraprastha and named it Lal Kot. His descendants became known as Tomara Kshatriyas. For the most part of their rule, they were the vassals of the Pratiharas of Kanauj. Tomara's son, Cauhanasubha became the next king. Known as

Samaladeva, he who ruled for 7 years. Another Tomara king was Jayasimha who ruled for about 50 years. Two other noted rulers were Anandadeva and Somesvara. Anangapala II, was the last king of the Tomara Dynasty. After his death his grandson Prithviraja became the ruler of Delhi.

Literary works such as *The Rajavali of Delhi* in Hindi verse composed by poet Kisanadasa gives us information about Anangapala Tomara who ruled Delhi in 852 A.D.

Cand's *Raso* also records that the Tomara King Anangapala I (a feudatory of the Pratihara kings of Kanauj) founded a new city on the ruins of Indraprastha.[1]

Bihar and parts of Uttar Pradesh were under the Palas and Senas of Bengal. These kings were not only fighting with each other, they were also under constant attacks from Muslim invaders.

In **Rajputana** (central India extending from west to the east), there were several Rajput dynasties who kept vying with each other instead of facing the external challenges and enemies. Pratiharas, Paramaras and Palas were losing ground in tripartite rivalries. However, new dynasties rose to power from many districts of Rajputana; such as Chandelas of Bundelkhand and Jaichand of Kanauj. Besides these there were the Chauhans of Ajmer, Solankis of Gujarat, Paramaras of Malwa etc. As they faced the external invaders who were now firmly established in Punjab, Uttar Pradesh and Bihar, the next five centuries witnessed the most barbaric and bloodiest times of the history of the Indian subcontinent. Kingdoms of Rajputana were soaked in the bloodbath.

In the South, Cholas continued to be a flourishing dynasty with chiefs of several eastern and northern areas as their vassals. In Karnataka, the Hoysala dynasty came to prominence and they ruled for the next several centuries.

Most parts of modern day Uttar Pradesh and Bihar were under the control of Palas/Senas of Bengal, Pratiharas of Kanauj and the Rashtrakutas

Andhras

Andhra Desa Kings

Early kings of Andhra Pradesh were mentioned in the war of *Mahabharata*. The territory was a part of the region which was ruled by the Satvahana Dynasty. From 100 B.C. to 250 A.D. the Satvahana rulers had a vast kingdom extending up to river Krishna in the south and river Godavari in the east.

Andhra people and the Satvahana rulers claimed their descent from the Iksvaku dynasty.

The records of Virapurusadatta, have been found at the three famous Buddhist sites, Amaravati, Jagayyapeta and Nagarjunakonda. These records are of religious and historical significance.

During the Mauryan rule, this region became an important Buddhist center.

In the next five hundred years, Andhra Pradesh was under the Chalukyas of Badami, the Pallavas, then under the Rashtrakutas and finally under the Eastern Chalukyas of Kalyana.

In his famous book *Kumara Sambhavamu*, Nannacodu, a Saiva poet described the ongoing battles between the Eastern Chalukya kings and the Rashtrakuta kings. Ultimately by 973 A.D., the latter were completely wiped out. Around 1000 A.D., the Chola emperors made way towards Vengi (Eastern part of Andhra Pradesh) and Malakhed, the capital of Chalukyas of Kalyana.

The ambitious Cholas ruled a vast territory tenth century onwards. They also led some successful expeditions to the Ganga Yamuna basin.

It is clear that no power howsoever strong could really control such a vast territory with so many animosities in such diverse regions. The maintenance of suzerainty over the conquered lands was difficult and the governors in charge of these far away provinces sought to carve out their own kingdoms.

Kashmir

Kashmir as a separate kingdom was flourishing before the times of *Mahabharata*. It was mentioned as a part of Uttarpatha (meaning northern route or northern region). The size of the kingdom was not always the same. Anus were one of the earliest inhabitants of Kashmir who participated in the 'Ten Kings' War'. During the *Mahabharata* times, Kashmir was ruled by Kambojas. Their capital was Rajapura which is the modern day city of Rajauri. It was an independent republic. During the *Mahabharata* War, the Kambojas were on the side of the Kurus. The Panchalas also ruled this region. In the modern day province of Jammu and Kashmir, there is a place called Peer Panjal (Panjal being Panchala) reminding us of Panchala presence in Kashmir.

During the 4th century B.C. the southern areas were part of the Kaikeya, Purus and Madras kingdoms. Under Asoka's rule, Buddhist *Bhikkus* brought Buddhism to Kashmir. Some of the Kushana rulers also patronized

Buddhism in this region. However, Hinduism continued to be the dominant religion of Kashmir and adjacent areas for many centuries. In the 7th century, Durlabhavardhana founded the Karkota dynasty, which was replaced by Utpalas in 855 A.D. After the decline of Utpalas, the kingdom was controlled by the Tantrins, Yaskaras, Guptas and Loharas respectively. Kashmir was under Hindu kings up to the 12th century A.D. Shaiva traditions were followed by most of the people. *Rajtarangani* by Kalhana gives the genealogy and history of kings of Kashmir. It covers early history of Kashmir up to the reign of Sangrama Deva, who ruled around 1006 A.D.

Kashmir was the center of Sanskrit scholars. Shaiva scholars such as Vasugupta, Somananda, Bhaskara hailed from Kashmir.

Tribes of India

Besides the major dynasties ruling large kingdoms and their feudatories, there were hundreds of tribes living according to their native cultures. Ruled by their chiefs and an elected group of elders, they were seldom affected by the wars.

Ramayana describes several tribes. Many of them lost their territory to powerful kingdoms but they retained their lifestyle and individual religious practices. From the Sangam period onwards, there were several tribes living in the south. Some of them were Bhilas, Abhiras, Banas, Traikutas and Todas. Most of the tribes still lead their traditional lives.

In Southern India in 10th century, the tripartite struggle continued. The players changed but the internecine warfare continued. While Cholas were becoming powerful on the eastern coast, another dynasty came to power replacing the Rashtrakutas and posing a new challenge to the Cholas. This was Chalukyas of Kalyana who ruled from 973-1189 A.D.

Toward the end of the tenth century A.D., Rashtrakuta Empire had expanded to include several provinces in the north and the south. Karka II found it difficult to combat ongoing attacks from the Chedis of Central India, Paramaras of Malva and Cholas of Tanjore. Though the Gangas remained loyal vassals till the end, it became difficult for the Rashtrakutas to defend the empire from all directions. At that time Taila II, a descendent of Bhima was administering a province known as Taravadi. Taila II was a nephew of the Chedi king. With the support of his uncle he defeated Karka II and declared himself the ruler of what used to be the Rashtrakuta kingdom. He also forced Shilahara Aparajitha of north Konkana to be his feudatory.

Taila II is considered to be the founder of the empire of Eastern Chalukyas also known as Chalukyas of Kalyana. He kept Malakheda as his capital.

In successive wars with Uttama Chola of Tanjore, Paramara king Munja and some rebels from the territory of the Gangas, Taila was able to consolidate most parts of the erstwhile Rashtrakuta Empire. His son Satyashraya succeeded him and tried to hold on to the territory gained by his father. The combined forces of Kalachuris of Chedi and the Paramara king did conquer some of their lost territory. From the South, Rajendra Chola continued to push his kingdom north wards. But Satyashraya held on to his empire.

For the next 150 years, the kings of this dynasty suffered a few defeats and won some victories in their continual battles with the Paramaras, Andhras of Vengi and the Chola kings.

In the extreme south there was a struggle for power between the Pandyas and the Sinhalese kings of Ceylon till the time of Parakrambahu who consolidated the kingdom of Ceylon.

The struggles between Pandyas and the Pallavas, later between Pallavas, Chalukyas and the Rashtrakutas made the entire region weak and vulnerable. All four dynasties disappeared by the 11th century. None of these dynasties could retain their power for a period long enough to consolidate the peninsula to be prepared for attacks by the foreign invaders.

Thus, around the end of the 10th century, Southern India, Central India and Northeastern India were busy fighting with each other. They did not notice the much more dangerous attacks from Arabs and Turks from the northwest and from the Arabian Sea. These attacks and incursions were followed by influx and bloodshed with serious and devastating consequences in the next millennium.

Endnotes

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Glossary

Abhinaye – acting

Acharya – a teacher

Adharma – disregard of *Dharma*

Adhbhuta – amazement

Adhyksha – superintendent

Adityas – 12 divisions of the orbit of the earth around the sun

Advaitism – non dualism, as is macrocosm, so is microcosm

Agarharas – schools patronized by kings and other prominent people in Southern India

Agarhat – Persian wheel

Agni – fire

Agni Chayana yajna – fire ceremony for fertility of the soil and good harvest

Aharya – makeup and costumes

Akash – space

Akhyanas – narratives

Ama – undigested food particles in the body

Amatya – Administrator, minister

Anekantavada – belief that there are many ways of explaining things, holding different perspectives

Angica – body gestures, *abhinaye*

Antapala – excise inspector to collect taxes

Anu – particle

Anushasana Parva – *Anushasana* means administration, discipline, *Parva* is a chapter, chapter on administration

Apabhramsa – distorted version

Apah – water

Ardhnarishwara – half side female and the other side male

Arhat (Sanskrit) *Arhanta (Prakrit)* – All *Jivas* (living entities) through spirituality reach a stage of perfect knowledge and the manifestation of absolute passionlessness with perfect knowledge. This stage is known as *Arhat*. Jaina Tirthankaras are considered and worshipped as *Arhatas*.

Arohi – (music) Ascending order of notes on a scale

Artha – material things needed to fulfill desires

Arya – Sanskrit word for noble

Aryavrata – land of the noble ones

Asana – Yogic postures

Ashava or Asva – horse

Ashramas – residential schools, residential community centers for monks, ascetics and devotees

Ashtanaayikas – heroines

Ashtang Yoga – eight limbs of yoga detailed in Patanjali's *Yoga Sastra*.

Asvamedha Yajna – Sacrificial ceremony performed by kings aspiring to be emperor

Ashvattha – *peepal* tree

Astika – a believer in the existence of God

Astra – missile

Atman – consciousness or awareness, also in a limited sense it is soul

Attalika – balcony

Avarohi – (music) descending order of notes in a scale

Avatara – incarnation

Ayas – iron

Ayurveda – science of life and longevity

Babool tree – botanical name, *Acacia Arabica*

Bagh – tiger

Basti – township

Beej/bija – seed, basic

Bharatam Janam – birth of Bharata

Bharata – Hindi/Sanskrit name of India

Bharata Natyam – a dance form

Bhartiya – Indian

Bhava – mood or feeling

Bhavsagar – world seen as an ocean

Bhayankara rasa – mood of horror

Bheda – division

Bhikshus/Bhikkus – disciples of Buddha who lived on charity

Bhramaris – pirouettes

Bhudevi – earth

Bhugarbha – basement

Bhutas – roots, structural components of the human body

Bodhisattvas – Buddhist saints

Brahmanda – Cosmos

Brahm – also spelled as Brahman, Sanskrit name for the Supreme Being

Brahmin – teachers and preachers in Varna system

Buddha – the enlightened one

Carvaka/charvaka – non-believers

Chaitya Griha – Buddhist prayer hall

Chakarvartin – Emperor

Chakori – peahen

Chakva, moar – peacock

Chandravamsi – belonging to the clan known as Chandravamsa

Chandravanshi – Lunar dynasty

Charpoys – wooden bed frames with woven jute twine in place of the mattress

Charvaka – wandering monks

Chaturanga – also Chaturangani, the game of chess

Chaturvarnya – fourfold division of society

Chausar – dice game

Chhanda – rhythm scheme

Chhanda Sutra – name of the book written by Pingla, describing rhythm schemes

Chirh tree – *Beta Bengalensis*

Chitta/cita – awareness, consciousness

Dama – gift

Danda – war, punishment

Dandanayaka – judges or in charge of the police

Dandaniti – policy of war or justice system

Das Lakshnam – ten signs of being Dharmic (religious)

Dasharajnya War – Suda's war with ten kings

Dashavatara – ten incarnations of Vishnu

Deodar tree – *Cidrus Deodara* (*Thuja Occidentalis*)

Desh kaala nimit – bound by place and time

Desh – place, country

Devanama – name of *Deva*

Devaputra – son of *Deva*

Devas – energies and attributes of the Supreme Being, natural phenomena or natural forces which make life possible on this earth

Devis – female aspect of the Divine or *Devas*

Dhamma – *Dharma* in Pali language

Dhara – blade of a sword

Dharana – focus on a point

Dharma – path of righteousness

Dharma Vijaya – moral victory

Dharmayuddha – fighting while observing the preset rules of warfare

Dharmic – observing *Dharma*

Dhatu – roots word in a language; in Ayurveda, relating to skeletal, muscular system

Dhoti – cotton garment for men

Dhyan or *Gyan mudra* – making an O by joining the thumb and the index finger

Dhyana – meditation

Dig Vijay – conquest of far-off lands in all four directions

Digambara – Jaina sect, members of this sect wear little clothing

Diya/deep – shallow earthen pot with oil and cotton wick used as a lamp

Doab – basin between two rivers

Dootas/dutas – messengers, ambassador

Doshas – humor of the body, imbalance of the elements in the body

Dravida – flow of knowledge

Dwija – twice born

Gaan – lyric

Gaana – song

Gajalakshmi – another name for Lakshmi

Ganams – committees to manage temple affairs

Gandharva arts – drama, dance and music

Ganga – River and the name of a southern Indian dynasty

Ganita – arithmetic

Garbhagriha – sanctum sanctorum

Garuda – large bird, a variety of eagle

Gathas – hero lauds

Gauri – another name for Parvati

Gayatri – a type of rhythm scheme, also name of a hymn, that which can be sung

Geomiti – Geometry

Ghattikas – schools for higher studies

Ghee – clarified butter

Ghunghroos – bells worn by dancers around their ankles

Gotra – clan

Grama – village

Gramani – resident of a village

Grantha – a monumental literary work

Grha – house, home

Grhasta – one who lives as a householder

Grhini – one who owns the house

Guna – quality, attribute, inclination

Guptachars – spies

Gurukulas – educational institutions, residential schools

Haathi – elephant

Hansa – white swan

Harithiputras – name of a clan, the name means, sons of God

Hasya – mood of comedy

Hindustan – India

Hindustani – Indian

Hindutva – essence of being a Hindu

Hiranya – gold

Indra – *Deva* of mind and senses, also *Deva* of cloud system

Inka (inca) – digit, numeral

Itihasa – *iti*+*ha*+*asa*, past events

Jaatis – surnames, names of clans

Jagat – that which exists and is in motion, world

Jalayantras – water levers

Janakiharana – abduction of Janaki (another name of Sita)

Janaraj – self-government

Jatakas – Buddhist tales

Jats – a clan of Haryana and Punjab

Jauhar – mass self-immolation

Jeevatma – a living thing with *Atman*; all living things have some level of consciousness, *Atman*

Jetthaka – alderman

Jiva, Jeeva – living thing

Jnyaati or gyaati – that which is known

Jyotisha – astronomy and astrology

Kaala – time

Kalanju – the gold coin

Kalasha – pot shaped container of water

Kaliyuga – the age of darkness or ignorance

Kalpa – largest measure of time equals 4.32 billion years

Kama – desire, lust

Kaphha – literally means sticky, mucus.

Karanika – superintendent of accounts

Karma – action, a chain of action and reaction

Karnam – causative

Karanas – dance poses

Karpasa – cotton plant, cotton fabric

Karthik also *Kartika Shukla Prathama* – first day after the new moon in Kartika month

Karuna – compassion, tragedy

Kavis – poets

Kayastha – one of the *jaatis* in northern India

Khaps/Sarva Khaps – Jat clan, group of Jat clans

Khavaiya – one who moves the oars of the boat

Kikar tree – *Acacia Nilotica*

Kottams/Koshtakas – district

Kshatriya – warrior, administrative class in the *Varna* system

Kula Devata – specific *Deva* of a clan

Kula – family, clan

Kumharas – potters

Lakshnam – signs

Lipikara – scribe

Loha – iron

Loka – people

Mahamatya – Chief Minister

Mahabhashya – commentary

Mahabhutas – These are the 5 basic elements which are responsible for the formation of all living things. These are space, air, fire, water and gross matter (earth).

Mahadanas – great charity

Mahajanapadas – Republics

Mahapradhana – Prime Minister

Maharajadhiraja – emperor

Mahsandhivigrahi – Minister for Foreign Affairs and Defense

Mandala – provinces

Mandalas – volumes

Mandapa – stage, raised dais

Mantras – verses, literal meaning, chant which helps in distancing the mind from the material world

Maryada – rectitude, normative social behavior

Mathas – schools, *ashramas*

Matri Dharma – duties of a mother

Maya – illusion

Meemansa – analysis

Mimansak – one who is analytic

Mithya – false or unproven

Moksha – liberation from anguish and suffering, liberation from the cycle of birth and death

Mudrarakshasa – a play written by Vishakhadatta

Mudras – hand gestures

Multani Mitti – Fuller's Earth

Murty – picture or idol of *Deva*, *Devi* or the Supreme Being based on the imagination of the artists

Murty puja – offering prayers in front of the idol

Muthoot – adviser

Naastika – not talking about the existence of God

Nagara – city or town

Nakshatra – a lunar mansion is one of the 27 or 28 divisions of the sky, identified by the prominent star(s) in each of the constellations.

Narasamsis – eulogies of the warriors and princes of the past

Nritya – dance

Nastika – nonbeliever, atheist

Nataka – drama, play

Nataraja – Shiva in dancing pose, Shiva as the king of dance

Natya – drama, acting

Nau – also *nouka*, a boat

Navarasa – nine *Rasas* or nine moods in music, dance or dramas; these are: *Karuna*, *Hasya*, *Vibhatsa*, *Rosha*, *Adhbhuta*, *Shanta*, *Veer*, *Bhyanaka* and *Sringaar*.

Nayaka – a leader

Neetimarga – a title, one who follows good policies

Nepathya – background or back stage

Nigam Sabha – modern day municipal committee or corporation

Nimisha – half a second

Nimit – bound

Nirvana – liberation from the cycle of birth and death

Niti – ethical norms for social and political behavior, protocol

Niti – policy

Nivartana – a land measure

Niyamas – rules

Nyaya – justice, balance

Ojas – vital energy of water

Panchasheela – five principles of nonalignment

Panchayat – village government by five elected heads

Papah – bad deeds, evil designs or actions

Param Advaita – most unparalleled non-dualism

Parishad – council

Parmanu – atom

Parmataman – the Supreme consciousness, the Supreme Being (the concept of God as a male figure does not correspond to *Parmatman*).

Pataala – other side of the globe, today it is referred to as the American continents

Phalaka – a wooden board for writing

Pitta – literally means what cooks. It refers to fire. In human body, the secretions of the glands control metabolism and digestion in the body.

Poorava – before

Praanas – flow of energy through breathing- life force

Praja – subjects

Praje Gavundas/Gramavridhas – another name for village elders

Prakriti – nature, creation

Pralaya – deluge

Pramana – evidence, proof

Pramukha or *jetthaka* – alderman

Pramukha – president

Prarabdha – predetermined, destiny

Prasasti – statue, pedestal for a statue, inscription

Pratyahara – control of mind

Pratyaya – declensions in Sanskrit grammar

Prithvi – earth

Priya – lovable, attractive

Puga – in charge of a village to dispense justice

Puja – worship, prayer ceremony

Punya – virtuous, moral deed, observing *Dharma*

Pur – city

Puranas – Ancient lore- Puranas contain history, legends and genealogies of kings and dynasties

Puravrtta – past happenings or events

Purohita – priest

Purusha – man, also used for the Supreme Energy

Purushartha – action for earning wealth and fulfilling desires

Putra – son

Raajyaabhisheka – coronation

Raga – attachment to something or someone, *Raga* in music is a specific arrangement of notes.

Raj Dharma – duties of a king

Raja – king

Rajaniti – royal policy

Rajat – silver

Rajdoot – a messenger or an ambassador

Rajguru – advisor to the king

Rajsuya Yajna – fire ceremony for establishing oneself as an emperor

Rajya Sabha – higher council

Rangamanch – stage

Rangshala – theater

Rasa – feeling, flow of feelings, moods

Rasas – six categories of tastes

Rashtra – nation

Rashtrapati – Governor of provinces

Rathayatra – journey of the chariot

Rosha – anger

Richa – *Mandala* or volume of *Rig Veda*

Rig Vedic – belonging to *Rig Veda*

Rishi – seer, visionary

Rishikas – female *rishi*

Rsatnin – gems

Rupyaka – Indian coin, rupee

Sabha – assembly

Sadhana – meditation, quest for self-realization, observance of austerities to create harmony between the self and the cosmos

Sadhvi – female *sadhu*

Sahdharmini – fellow traveler in the journey of life, refers to the wife

Sama – alliance

Samanya Dharma – *Dharma* and righteous conduct for all beings

Samiti – committee

Samohini – herb to make a person unconscious

Sanatana Dharma – eternal cosmic laws, eternal tradition

Sandhi Vigrahika – Army chief, defense minister

Sangam – assembly, meeting

Sangeet – music

Sankhya – science of cognition

Sankirtana – singing devotional music in chorus

Sanyam – self-control

Sapta Saindhava – region between the river basins of seven rivers from Indus to Sarasvati in western India

Saptak – scale of seven notes in music

Saptarsi – seven seers

Sarasvati Nadi Shodh Sansthan – organization engaged in the cleaning and dredging Sarasvati River

Sari – dress style worn by women

Sarve – all

Sati – voluntary self-immolation, suicide

Sattvica – physical manifestation of mental and emotional state

Satyadharmasthitasya – literally means supporter of true *Dharma*

Senapati – head of the army

Senapati, Dandanatha or Sainyanatha – army commander

Setu – bridge

Setubandha – building a bridge

Seven notes – *Shadja*, *Rishabh*, *Gandhara*, *Madhyam*, *Pancham*, *Dhaivat*, *Nikhad*

Shakt – strong

Shakti – strength or essence of power

Shankha – conch, shells

Shanta – mood of peace

Shramana – wandering hermits seeking knowledge and self-realization

Shetthis – elder man

Shikhara – pyramidal structure surrounding the sanctum sanctorum (*Garbhagriha*)

Shringar – love

Shruti – oral rendition of literature

Shudra – laborers

Shwetambera – the Jaina sect of devotees who wear white clothes

Siddha – self-realized, enlightened

Silpin – sculptor

Simha – lion

Simhala (Sinhala) – Ceylon's language and ethnicity

Sindhu – ocean

Sindoor – red powder, vermillion

Samadhi – state of transcendence

Samrat – emperor

Samiti – Council

Smriti – Literature passed on in written form

Sreni – class, head of the rural Panchayat

Stambha – pillar, a flagpost

Sthapati – architect

Sthula – gross

Subhashita – wisdom, aphorisms or maxims

Sukshma – subtle

Suktas – hymns

Suryavamsi – belonging to the dynasty of Iksvaku

Sutradhara – narrator

Sutras – aphorisms

Suvarna – gold

Svara/sura – notes

Swami – one who is master of his senses and mind

Swamini – female swami

Swasti – being healthy

Swaymvara – choosing one's groom

Taala – pattern of beats in music

Tamas – darkness, ignorance

Tantra – magical spell or influence of certain ceremonies

Tarh tree – *borassus flabelifer* (brab-palm)

Tattavas – elements

Tejas – fires

Tirthankara – Jaina *Avatara*

Tithi – day of the lunar month named after a *naksatra*

Torana – gateway to a temple

Tridoshika – all three humors are kept in balance

Trikashasra – A form of Shaivism in Kashmir

Trikonmiti – Trigonometry

Trimurti – three faced statue of the Supreme Being

Tulabhara – weighing oneself in gold or silver and giving that amount in charity

Uparikas, Pradeshika – provincial governors

Upasargas – suffixes

Uttara – after

Vachica – music, lyrics, rhythm

Vaidya – a doctor

Vaisheshika – study of specific elements or combination of elements

Vaishya – district

Vaishya – merchants and manufacturers, a class in *Varna* system

Vamsa – clan

Vandanas – offering prayers

Varaha – boar

Varna Ashramas – four stages of one's life

Varna Dharma – occupational division of society and duties of each occupational group

Varuna – water

Vastoshpati – building a place to live that may provide protection, happiness and prosperity in life

Vastu Sastra – science of architecture

Vasus – shining objects such as the Sun and the Moon

Vatika – garden

Vatta – literally means that which blows and flows

Vayu – air

Vedangas – several limbs of *Vedas* are known as *Upavedas* or *Vedangas*

Vedanta – philosophic parts of the *Vedas*

Veera – courageous, brave

Vendidad – The third part of the book of Zoroastrians dealing with ritual purity guides people how to ward off evil spirits

Vibhatsa – disgust

Vidusaka – jester, comedian

Vidyasthana – a school, a place for education

Vigraha – idol of a *Deva* or any manifestation of God established in the temple

Vihara – Buddhist monastery

Vimana – top of a temple, air plane

Vinaya – rules of courtesy and protocol

Vishesha Dharma – specific duties relating to each role one has to fulfill

Visperad – the second part consists of invocations to the Lord of the spiritual world and the material creation

Visupatui – head of a small province, a governor of modern times

Vritra – negative forces in the outer or the inner world, symbol of snake is used for Vritra

Vrsadhvaja – flag with a bull on it

Yajna – Vedic ceremonies where fire is built in altars and prayers and offerings are made to the Supreme Being and the various forces of nature

Yakshas – a category of *Devas*; this category includes *Devas* such as Yama (the *Deva* of death or time) and Kuber (*Deva* of wealth)

Yantras – mechanical devices

Yasa – iron

Yashts and *Nyaeshes* – epic hymns in Zoroastrianism

Yasna (Yajna) – the first part of the book of worship composed by Zoroaster

Yoga – *Yoga Chita vriti nirodha*, control of mind and body through the control of breath

Yoginis – female yogi

Yojana – measure of distance, equal to seven miles

Yomiagne – Seated in front of the fire

Yónim ágre – seated in front with other ladies

Yonna – Buddhist name for *Yajna*

Yuddha – war

Yuga – a measure of time, *Kaliyuga* (the current *Yuga*) is supposed to last 43,2000 years.

Yuvaraja – crown prince

Zamindari – system of land ownership and tenant farming, introduced by the British for land revenue collection

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80°

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BACTRIANA

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Mahabharata *Time*
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***Kamlesh Kapur**, an educator and researcher, has a Masters in Economics from Punjab University, and a Masters in Education from St. John's University, USA. She was among the first twenty women to be directly selected in the Indian Central Services.*

Kamlesh Kapur has had a long association with secondary school students. For over twenty years she taught World History and Global cultures using various prescribed textbooks. After completing a comprehensive review of the Indian history sections of these textbooks, she found numerous inaccuracies and outdated theories. She spearheaded the movement for correcting the content and developing an appropriate program of study based on recent discoveries emanating from various fields of research.

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It is with a deep sense of privilege that I write a few lines about this monumental book by Mrs. Kamlesh Kapur, whom I came across for the first time at one of the WAVES conferences about ten years ago. As an eminent educationist who has contributed to the academic world and to the training of generations of students, Ms Kamlesh Kapur is well qualified to write a textbook for high school students. There has been a momentous shift of paradigms regarding the historical view of ancient Indian civilization brought about by new archaeological, geological and more recently by genetic findings of the last two or three decades. Kamlesh Kapur has filtered the material from primary sources, research papers and monographs and has presented the material in a very lucid and engaging style in a text suitable for high school students. She has dropped the myths and assumptions about the history of Indian Civilization taught for the last couple of centuries, has reclaimed an accurate chronology of Ancient Indian History, all the while making it interesting. An outstanding job by any measure! I wish her all success.

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